NATURA IMPACT STATEMENT

IN SUPPORT OF THE

APPROPRIATE ASSESSMENT

OF

PROPOSED VARIATION NO. 1

TO THE

GALWAY COUNTY DEVELOPMENT PLAN

2009-2015

IN ACCORDANCE WITH THE REQUIREMENTS OF
ARTICLE 6(3) OF THE EU HABITATS DIRECTIVE

for: **Galway County Council**
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Section 1 Introduction

1.1 Background

This is the Natura Impact Statement for the proposed Variation No. 1 to the Galway County Development Plan 2009-2015 in accordance with the requirements of Article 6(3) of the EU Habitats Directive[1]. This report is divided into these four sections:

Section 1 Introduction
Section 2 Stage 1 Screening
Section 3 Stage 2 Appropriate Assessment
Section 4 Mitigation Measures

1.2 Legislative Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are candidate Special Areas of Conservation (cSACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

"Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public

If, in spite of a negative assessment of the implications for the [Natura 2000] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

[1] Directive 92/43/EEC

1.3 Stages of Appropriate Assessment

This Appropriate Assessment has been prepared in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*. Department of the Environment, Heritage and Local Government, 2009.
- *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*, European Commission Environment DG, 2000.
- Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC: European Commission, 2000

AA comprises four stages:

Stage One: Screening

The process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

Stage Two: Appropriate Assessment

The consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.

Stage Three: Assessment of Alternative Solutions

The process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain

An assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First, the plan should aim to avoid any impacts on European sites by identifying possible impacts early in the plan-making process and writing the plan in order to avoid such impacts. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If the plan is still likely to result in impacts on European sites, and no further practicable mitigation is possible, then it must be rejected. If no alternative solutions are identified and the plan is required for imperative reasons of overriding public interest (IROPI test) under Article 6(4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect.

This report documents the first of these stages. It's conclusion that significant impacts on Natura 2000 sites are unlikely means that further AA stages are not required.

Section 2 Stage 1 Screening

2.1 Description of the Variation

2.1.1 Background

Galway County Council proposes to make a Statutory Variation to the current Galway County Development Plan to introduce a Core Strategy, in accordance with the provisions of the Planning and Development Act 2010.

2.1.2 Content

There are 2 components to the Proposed Variation.

The first is to replace Section 2 - *Spatial Planning Strategy* - of the County Development Plan 2009 to 2015 with a new Section 2 - *Core Strategy and Spatial Planning*.

This is necessary in order to give effect to the requirement under Section 7 of the Planning and Development Act 2010, to introduce a Core Strategy into the Galway County Development Plan 2009 to 2015. This is necessary to demonstrate that the County Development Plan and its objectives are consistent with national and regional development objectives as set out in the National Spatial Strategy and the West Regional Planning Guidelines 2010 to 2022, especially as regards:

- The hierarchy and role of Gateways, Hub towns, county towns, other towns and villages and rural areas; and,
- Giving effect to the hierarchy by setting regional and national population targets and associated requirements for housing land across the overall functional area of the planning authority.

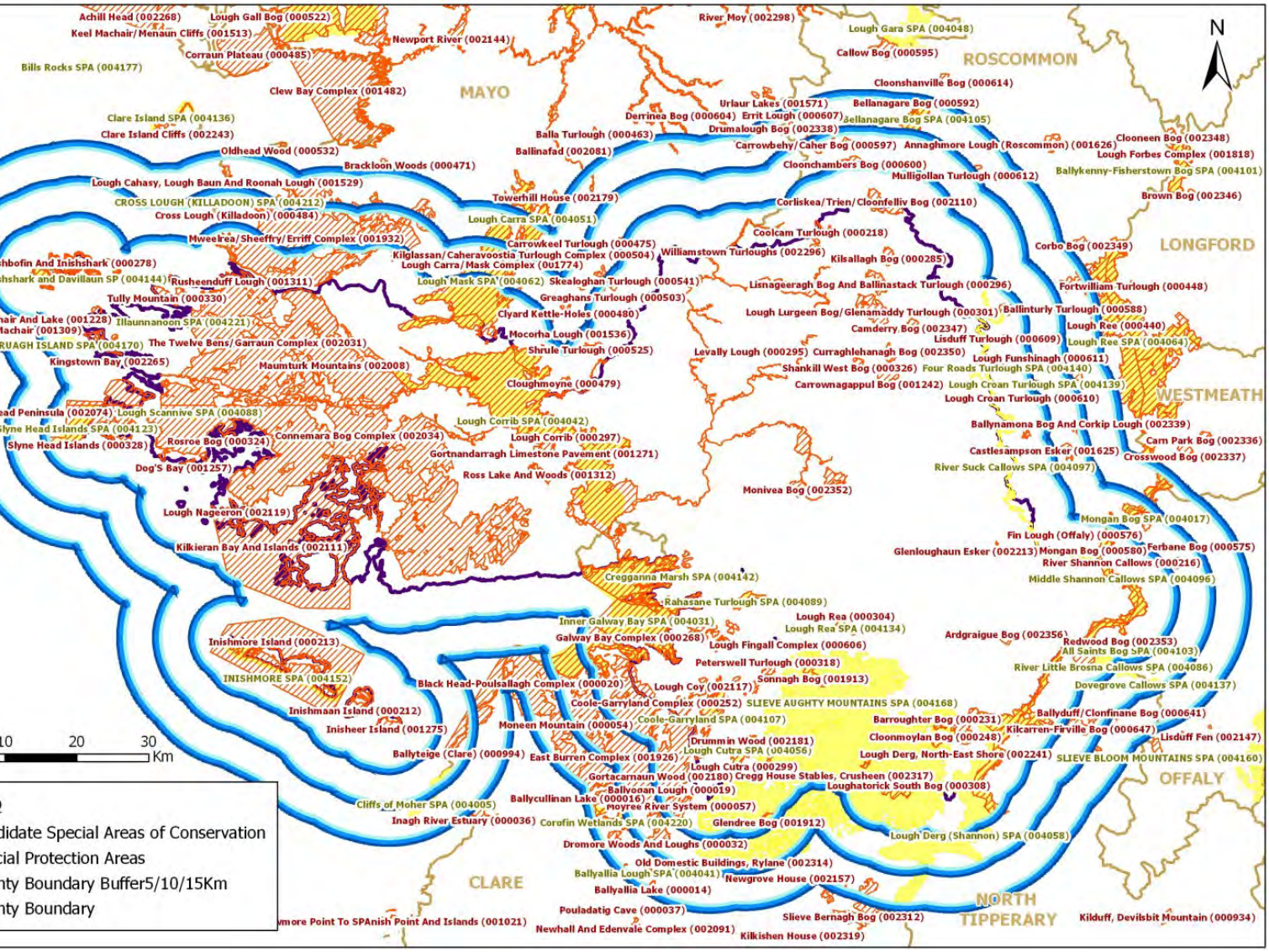
The second component is to amend various parts of Section 3 - *Settlement Strategy* - of the County Development Plan to ensure that the County settlement strategy is consistent with the settlement hierarchy set out in the proposed Variation, the Regional Planning Guidelines for the West Region 2010 to 2022 and the National Spatial Strategy.

2.2 Natura 2000 Sites in and within 15 km of the Plan Area

2.2.1 SACs and SPAs

This section of the screening process describes the Natura 2000 sites within a 15km zone of impact of the plan area. A distance of 15km is currently recommended in the DoE document *DRAFT - Guidance for Planning Authorities* and as a precautionary measure, to ensure that all potentially affected Natura 2000 sites are included in the screening process. A map indicating the locations of the sites is given in Figure 2.1.

Tables 2.1 a & b and Tables 2.2 a & b list the Natura 2000 sites that are a) within County Galway and b) within 15 km of the county boundary. The qualifying features for each site have been obtained through a review of the site synopses available from the NPWS website.



2.1: Natura 2000 sites within Co. Galway and 15km of the County Boundary (July 2011)

Table 2.1a: SPAs in County Galway

Site Name and code	Conservation Interests	
004031 - Inner Galway Bay SPA	Red-throated Diver, Black-throated Diver, Great Northern Diver, Golden Plover, Bar-tailed Godwit, Sandwich Tern and Common Tern.	Brent Goose, Black-throated Diver, Cormorant, Mute Swan, Wigeon, Teal, Shoveler, Red-breasted Merganser, Ringed Plover, Lapwing, Dunlin, Bar-tailed Godwit, Curlew, Redshank, Greenshank, Turnstone Red-breasted Merganser, Ringed Plover, Little Grebe, Grey Heron, Longtailed Duck, Scaup, Black-headed Gull, Common Gull and Herring Gull, Great Crested Grebe, Mallard, Shelduck, Common Scoter, Oystercatcher, Grey Plover, and Great Blackbacked Gull
004042 - Lough Corrib SPA	Whooper Swan, Greenland White-fronted Goose, Golden Plover, Common Tern and Arctic Tern.	Pochard, Common Scoter, Tufted Duck, Coot, Mute Swan, Gadwall, Shoveler, Lapwing, Wigeon, Teal, Mallard, Goldeneye, Curlew and Cormorant
004056 - Lough Cutra SPA	Whooper Swan	Cormorant, Whooper Swan, Mallard, Tufted Duck, Goldeneye, Mute Swan, Common Sandpiper
004058 - Lough Derg (Shannon) SPA	Common Terns, Whooper Swan, Greenland White Fronted Goose	Tufted Duck, Goldeneye, Mute Swan, Black Headed Gull, Cormorant, Great Crested Grebe, Wigeon, Teal, Mallard, Pochard, Coot, Lapwing, Little Grebe
004062 - Lough Mask SPA	Common Tern, Whooper Swan and Greenland White-fronted Goose	Black-headed Gull, Common Gull, Lesser Black-backed Gull, Tufted Duck, Wigeon, Teal, Mallard, Pochard, Goldeneye, Coot, Red-breasted Merganser, Little Grebe, Mute Swan and Cormorant
004067 - High Island (Galway) SPA	Storm Petrel, Barnacle Goose, Peregrine and Chough	Fulmar, Manx Shearwater, Great Black-backed Gull, Herring Gull and Black Guillemot
004088 - Lough Scannive SPA	Merlin	Cormorant, Common Gull, Great Black-backed Gull
004089 - Rahasane Turlough SPA	Greenland White-fronted Goose, Whooper Swan and Golden Plover	Wigeon, Pintail, Lapwing, Black-tailed Godwit, Shoveler, Dunlin, Mute Swan, Teal, Tufted Duck, Curlew, Redshank, Mallard, Black-headed Gull and Grey Heron
004096 - Middle Shannon Callows SPA	Whooper Swan, Corncrake, Golden Plover, Bewick's Swan, Greenland White Fronted Goose, Merlin, Hen Harrier, Kingfisher	Mute Swan, Wigeon, Lapwing, Black Tailed Godwit, Whimbrel, Teal, Tufted Duck, Dunlin, Curlew, Redshank, Black Headed Gull, Snipe, Shoveler, Quail, Sedge Warbler, Grasshopper Warbler, Skylark, Reed Bunting, Whinchat
004097 - River Suck Callows SPA	Greenland White Fronted Goose, Whooper Swan, Golden Plover	Wigeon, Lapwing, Mute Swan, Teal, Pintail, Curlew, Black Headed Gull
004107 - Coole-Garryland SPA	Whooper Swan	Wigeon, Teal, Shoveler, Pochard, Tufted Duck, Mallard, Pintail, Goldeneye, Mute Swan, Lapwing and Curlew, Common Sandpiper
004152 - Inishmore SPA	Chough, Little Tern, Arctic Tern, Merlin and Peregrine Falcon	Kestrel, Sparrowhawk, Linnet, Goldfinch Guillemot, Fulmar, Razorbill, Shag, Herring Gull, Great Blackbacked Gull and Kittiwake
004123 - Slyne Head Islands SPA	Arctic Tern, Storm Petrel, Barnacle Geese	Black Guillemots, Manx Shearwater, Herring Gull and Great Black-backed Gull
004134 - Lough Rea SPA	Shoveler and Coot	Wetland & Waterbirds
004142 - Cregganna Marsh SPA	Greenland White-fronted Geese	N/A
004168 - Slieve Aughty Mountains SPA	Hen Harrier and Merlin	N/A
004170 - Cruagh Island SPA	Manx Shearwater and Barnacle Goose	Great Black-backed Gull, Fulmar

Table 2.1b: SPAs within 15km of the Boundary of County Galway

Site Name and Code	Conservation Interests	
004064 Lough Ree SPA	Whooper Swan, Greenland White Fronted Goose, Common Tern, Golden Plover	Wigeon, Teal, Pintail, Tufted Duck, Goldeneye, Lapwing, Cormorant, Mallard, Coot, Shoveler, Curlew, Great Crested Grebe, , Little Grebe, Mute Swan, Black Headed Gull, Lesser Black-backed Gull, Common Gull, Common Scoter, Garden Warbler
004105 Bellanagare Bog SPA	Greenland White-fronted Geese, Golden Plover	Red Grouse
004139 Lough Croan Turlough SPA	Whooper Swan, Golden Plover, Greenland White-fronted Goose and Bewick's Swan	Shoveler, Wigeon, Gadwall, Teal, Mallard, Pintail, Coot, Lapwing, Curlew, Pochard, Shoveler, Mute Swan, Blackheaded Gull Snipe, Curlew and Lapwing.
004140 Four Roads Turlough SPA	Greenland White-fronted Geese, Whooper Swan	Wigeon, Teal, Shoveler, Bewick's Swan, Greenland White-fronted Goose, Mallard, Pintail, Golden Plover, Lapwing, Curlew, Redshank and Snipe.
004005 Cliffs of Moher SPA	Chough and Puffin	Fulmar, Kittiwake, Guillemot, Razorbill and Puffin. Razorbill Shag, Herring Gull, Great Black-backed Gull and Black Guillemot
004041 Ballyallia Lough SPA	Whooper Swan	Black-tailed Godwit Shoveler and Gadwall Little Grebe, Wigeon, Gadwall, Teal, Shoveler, Coot and Black-tailed Godwit. Whooper Swan, Mallard, Pintail, Pochard, Tufted Duck, Lapwing, Mute Swan, Grey Heron, Cormorant, Greylag Goose and Black-headed Gull
004086 River Little Brosna Callows SPA	Greenland White Fronted Goose, Whooper Swan, Golden Plover	Black Tailed Godwit, Wigeon, Teal, Pintail, Shoveler, Lapwing, Mute Swan, Mallard, Dunlin, Pochard, Curlew, Black Headed Gull, Redshank, Snipe
004017 Mongan Bog SPA	Greenland White Fronted Goose	Mallard, Snipe, Curlew, Skylark, Meadow Pipit
004103 All Saints Bog SPA	Greenland White-fronted Geese, Merlin	N/A
004137 Dovegrove Callows SPA	Merlin	N/A
004212 Cross Lough (Killadoon) SPA	Whooper Swan and Barnacle Goose	N/A

Table 2.2a: SACs in County Galway

Site Name (Site Code)	**Annex I habitat**	**Annex II Species**
000212 - Inishmaan Island SAC	Limestone pavements Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) European dry heaths Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) Machairs (in Ireland) Perennial vegetation of stony banks Reefs Vegetated sea cliffs of the Atlantic and Baltic coasts Embryonic shifting dunes Shifting dunes along the shoreline with Ammophila arenaria (white dunes) Limestone pavements European dry heaths Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) Fixed coastal dunes with herbaceous vegetation (grey dunes) Embryonic shifting dunes Shifting dunes along the shoreline with Ammophila arenaria (white dunes) Dunes with Salix repens ssp.argentea (Salix arenariae) Humid dune slacks Machairs (in Ireland) Perennial vegetation of stony banks Reefs Vegetated sea cliffs of the Atlantic and Baltic coasts Alpine and Boreal heaths Submerged or partly submerged sea caves Coastal lagoons	
000213 - Inishmore Island SAC		Vertigo angustior
000216 - River Shannon Callows SAC	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) Molinia meadows on calcareous, peaty or clavey-silt-laden soils (Molinion caeruleae) Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) Limestone pavements	Lutra lutra
000218 - Coolcam Turlough SAC	Turloughs	
000231 - Barroughter Bog SAC	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
000238 - Caherglassaun Turlough SAC	Turloughs	Rhinolophus hipposideros
000242 - Castletaylor Complex SAC	Turloughs Alpine and Boreal heaths Juniperus communis formations on heaths or calcareous grasslands Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Limestone pavements	
000248 - Cloonmoylan Bog SAC	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion Bog woodland	
000252 - Coole-Garryland Complex SAC	Limestone pavements Turloughs Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Juniperus communis formations on heaths or calcareous grasslands Natural euthrophic lakes with Magnopotamion or	

Site Name (Site Code)	**Annex I habitat**	**Annex II Species**
	Hydrocharition-type vegetation Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation	
000255 - Croaghill Turlough SAC	Turloughs	
000261 - Derrycrag Wood Nature Reserve SAC	Old sessile oak woods with Ilex and Blechnum in British Isles	
000268 - Galway Bay Complex SAC	Coastal lagoons Large shallow inlets and bays Reefs Perennial vegetation of stony banks Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Mediterranean salt meadows (Juncetalia maritimi) Salicornia and other annuals colonizing mud and sand Calcareous fens with Cladium mariscus and species of the Caricion davallianae Turloughs Mudflats and sandflats not covered by seawater at low tide Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Alkaline fens Juniperus communis formations on heaths or calcareous grasslands	Phoca vitulina Lutra lutra
000278 - Inishbofin and Inishshark SAC	Coastal lagoons Northern Atlantic wet heaths with Erica tetralix European dry heaths Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)	Halichoerus grypus
000285 - Kilsallagh Bog SAC	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
000286 - Kiltartan Cave (Coole) SAC	Caves not open to the public	Rhinolophus hipposideros
000295 - Levally Lough SAC	Turloughs	
000296 - Lisnageeragh Bog and Ballinastack Turlough SAC	Turloughs Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
000297 - Lough Corrib SAC	Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) Active raised bogs Old sessile oak woods with Ilex and Blechnum in British Isles Molinia meadows on calcareous, peaty or clavey-silt-laden soils (*Molinion caeruleae*) Alkaline fens Calcareous fens with Cladium mariscus and species of the *Caricion davallianae* Limestone pavements Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*)(important orchid sites) Bog woodland Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation Petrifying springs with tufa formation (*Cratoneurion*) Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	Petromyzon marinus Salmo salar Lampetra planeri Rhinolophus hipposideros Lutra lutra Austropotamobius pallipes Margaritifera margaritifera Najas flexilis Drepanocladus vernicosus
000299 - Lough Cutra SAC		Rhinolophus hipposideros
000301 - Lough Lurgeen Bog/Glenamaddy Turlough SAC	Active raised bogs Turloughs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
000304 - Lough Rea SAC	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	
000308 - Loughatorick South Bog SAC	Blanket bog (active only)	
000318 - Peterswell Turlough SAC	Turloughs	
000319 - Pollnaknockaun Wood Nature	Old sessile oak woods with Ilex and Blechnum in British Isles	

Site Name (Site Code)	**Annex I habitat**	**Annex II Species**
Reserve SAC		
000322 - Rahasane Turlough SAC	Turloughs	
000324 - Rosroe Bog SAC	Blanket bog (active only) Depressions on peat substrates of the Rhynchosporion	
000326 - Shankill West Bog SAC	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
000328 - Slyne Head Islands SAC	Reefs	Halichoerus grypus
000330 - Tully Mountain SAC	European dry heaths Alpine and Boreal heaths Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) Blanket bog (active only)	
000474 - Ballymaglancy Cave, Cong SAC	Caves not open to the public	Rhinolophus hipposideros
000606 - Lough Fingall Complex SAC	Turloughs Limestone pavements Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Alpine and Boreal heaths Juniperus communis formations on heaths or calcareous grasslands Calcareous fens with Cladium mariscus and species of the Caricion davallianae	Rhinolophus hipposideros
001228 - Aughrusbeg Machair and Lake SAC	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) Northern Atlantic wet heaths with Erica tetralix	
001242 - Carrownagappul Bog SAC	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
001251 - Cregduff Lough SAC	Transition mires and quaking bogs	Najas flexilis
001257 - Dog's Bay SAC	Annual vegetation of drift lines Embryonic shifting dunes Fixed coastal dunes with herbaceous vegetation (grey dunes) European dry heaths Shifting dunes along the shoreline with Ammophila arenaria (white dunes)	
001271 - Gortnandarragh Limestone Pavement SAC	Limestone pavements	
001275 - Inisheer Island SAC	Limestone pavements Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) European dry heaths Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) Reefs Coastal lagoons	
001285 - Kiltiernan Turlough SAC	Turloughs	
001309 - Omey Island Machair SAC	Machairs (in Ireland) Hard oligo-mesotrophic waters with benthic vegetation of Chara spp	Petalophyllum ralfsii
001311 - Rusheenduff Lough SAC	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	Najas flexilis
001312 - Ross Lake and Woods SAC	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. Alkaline fens Molinia meadows on calcareous, peaty or clavey-silt-laden soils (Molinion caeruleae) Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	Rhinolophus hipposideros Lutra lutra
001313 - Rosturra Wood SAC	Old sessile oak woods with Ilex and Blechnum in British Isles	
001321 - Termon Lough SAC	Turloughs	
001774 - Lough Carra/Mask Complex SAC	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) Limestone pavements	Rhinolophus hipposideros Lutra lutra Drepanocladus vernicosus

Site Name (Site Code)	**Annex I habitat**	**Annex II Species**
	European dry heaths Calcareous fens with Cladium mariscus and species of the Caricion davallianae Alkaline fens Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites)	
001913 - Sonnagh Bog SAC	Blanket bog (active only)	
001926 - East Burren Complex SAC	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. Turloughs Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Alpine and Boreal heaths Juniperus communis formations on heaths or calcareous grasslands Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) Calcareous fens with Cladium mariscus and species of the Caricion davallianae Petrifying springs with tufa formation (Cratoneurion) Alkaline fens Limestone pavements Caves not open to the public Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	Rhinolophus hipposideros Lutra lutra Euphydryas aurinia
002008 - Maumturk Mountains SAC	Alpine and Boreal heaths Siliceous rocky slopes with chasmophytic vegetation Blanket bog (active only) Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) Northern Atlantic wet heaths with Erica tetralix Depressions on peat substrates of the Rhynchosporion	Salmo salar Najas flexilis
002031 - The Twelve Bens/Garraun Complex SAC	Blanket bog (active only) Siliceous rocky slopes with chasmophytic vegetation Calcareous rocky slopes with chasmophytic vegetation Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) Alpine and Boreal heaths Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) Old sessile oak woods with Ilex and Blechnum in British Isles Depressions on peat substrates of the Rhynchosporion	Salmo salar Lutra lutra Margaritifera margaritifera Najas flexilis
002034 - Connemara Bog Complex SAC	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) Natural dystrophic lakes and ponds Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Northern Atlantic wet heaths with Erica tetralix European dry heaths Molinia meadows on calcareous, peaty or clavey-silt-laden soils (Molinion caeruleae) Blanket bog (active only) Old sessile oak woods with Ilex and Blechnum in British Isles Alkaline fens Coastal lagoons Transition mires and quaking bogs Depressions on peat substrates of the Rhynchosporion Reefs	Salmo salar Lutra lutra Euphydryas aurinia Najas flexilis
002074 - Slyne Head Peninsula SAC	Coastal lagoons Annual vegetation of drift lines Perennial vegetation of stony banks Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Mediterranean salt meadows (Juncetalia maritimi) Embryonic shifting dunes	Petalophyllum ralfsii Najas flexilis

Site Name (Site Code)	**Annex I habitat**	**Annex II Species**
	Shifting dunes along the shoreline with Ammophila arenaria (white dunes) Machairs (in Ireland) Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) Juniperus communis formations on heaths or calcareous grasslands Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Large shallow inlets and bays Reefs Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. European dry heaths Molinia meadows on calcareous, peaty or clavey-silt-laden soils (Molinion caeruleae) Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) Alkaline fens	
002110 - Corliskea/Trien/Cloonfelliv Bog SAC	Bog woodland Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
002111 - Kilkieran Bay and Islands SAC	Mudflats and sandflats not covered by seawater at low tide Large shallow inlets and bays Coastal lagoons Reefs Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Mediterranean salt meadows (Juncetalia maritimi) Machairs (in Ireland) Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	Lutra lutra Phoca vitulina Najas flexilis
002117 - Lough Coy SAC	Turloughs	
002118 - Barnahallia Lough SAC	Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) Blanket bog (active only)	Najas flexilis
002119 - Lough Nageeron SAC	Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)	Najas flexilis
002129 - Murvey Machair SAC	Machairs (in Ireland)	Petalophyllum ralfsii
002130 - Tully Lough SAC	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	Najas flexilis
002180 - Gortacarnaun Wood SAC	Old sessile oak woods with Ilex and Blechnum in British Isles	
002181 - Drummin Wood SAC	Old sessile oak woods with Ilex and Blechnum in British Isles	
002213 - Glenloughaun Esker SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites)	
002241 - Lough Derg, North-East Shore SAC	Taxus baccata woods of the British Isles Juniperus communis formations on heaths or calcareous grasslands Alkaline fens Calcareous fens with Cladium mariscus and species of the Caricion davallianae Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) Limestone pavements	
002244 - Ardrahan Grassland SAC	Alpine and Boreal heaths Limestone pavements Juniperus communis formations on heaths or calcareous grasslands	
002265 - Kingstown Bay SAC	Large shallow inlets and bays	
002293 - Carrowbaun, Newhall and Ballylee Turloughs SAC	Turloughs	
002294 - Cahermore Turlough SAC	Turloughs	
002295 - Ballinduff Turlough SAC	Turloughs	
002296 - Williamstown Turloughs SAC	Turloughs	
002317 - Cregg House Stables, Crusheen SAC		Rhinolophus hipposideros
002347 - Camderry Bog SAC	Active raised bogs Degraded raised bogs still capable of natural regeneration	

Site Name (Site Code)	**Annex I habitat**	**Annex II Species**
	Depressions on peat substrates of the Rhynchosporion	
002350 - Curraghlehanagh Bog SAC	Degraded raised bogs still capable of natural regeneration Active raised bogs Depressions on peat substrates of the Rhynchosporion	
002352 - Monivea Bog SAC	Degraded raised bogs still capable of natural regeneration Active raised bogs Depressions on peat substrates of the Rhynchosporion	
002356 - Ardgraigue Bog SAC	Degraded raised bogs still capable of natural regeneration Active raised bogs Depressions on peat substrates of the Rhynchosporion	

Table 2.2b: SACs within 15km of the Boundary of County Galway

Site Name (Site Code)	Annex I habitat	Annex II Species
000014 Ballyallia Lake	Natural euthrophic lakes with Magnopotamion or Hydrocharition-type vegetation	
000016 Ballycullinan Lake	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	
000019 Ballyogan Lough	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	
000020 Black Head-Poulsallagh Complex	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Alpine and Boreal heaths Juniperus communis formations on heaths or calcareous grasslands Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) Petrifying springs with tufa formation (Cratoneurion) Reefs Limestone pavements Submerged or partly submerged sea caves Perennial vegetation of stony banks	*Petalophyllum ralfsii*
000032 Dromore Woods And Loughs	Limestone pavements Natural euthrophic lakes with Magnopotamion or Hydrocharition-type vegetation Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	*Rhinolophus hipposideros* *Lutra lutra*
000054 Moneen Mountain	Limestone pavements Petrifying springs with tufa formation (Cratoneurion) Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Calaminarian grasslands of the Violetalia calaminariae Alpine and Boreal heaths Juniperus communis formations on heaths or calcareous grasslands Turloughs	*Rhinolophus hipposideros* *Euphydryas aurinia*
000057 Moyree River System	Limestone pavements Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Alkaline fens Caves not open to the public	*Rhinolophus hipposideros* *Euphydryas aurinia*
000440 Lough Ree	Natural euthrophic lakes with Magnopotamion or Hydrocharition-type vegetation Alkaline fens Old sessile oak woods with Ilex and Blechnum in British Isles Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Bog woodland Limestone pavements Degraded raised bogs still capable of natural regeneration	
000461 Ardkill Turlough	Turloughs	
000475 Carrowkeel Turlough	Turloughs	
000479 Cloughmoyne	Limestone pavements	
000480 Clyard Kettle-Holes	Calcareous fens with Cladium mariscus and species of the Caricion davallianae Turloughs	

Site Name (Site Code)	Annex I habitat	Annex II Species
000484 Cross Lough (Killadoon)	Perennial vegetation of stony banks Coastal lagoons Machairs (in Ireland) Molinia meadows on calcareous, peaty or clavey-silt-laden soils (Molinion caeruleae)	
000503 Greaghans Turlough	Turloughs	
000504 Kilglassan/Caheravoostia Turlough Complex	Turloughs	
000525 Shrule Turlough	Turloughs	
000541 Skealoghan Turlough	Turloughs	
000566 All Saints Bog And Esker	Bog woodland Active raised bogs Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
000575 Ferbane Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
000576 Fin Lough (Offaly)	Alkaline fens Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. Degraded raised bogs still capable of natural regeneration	*Vertigo geyeri*
000580 Mongan Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
000581 Moyclare Bog	Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
000588 Ballinturly Turlough	Turloughs	
000592 Bellanagare Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	*Euphydryas aurinia*
000597 Carrowbehy/Caher Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	*Euphydryas aurinia*
000600 Cloonchambers Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	*Euphydryas aurinia*
000604 Derrinea Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
000607 Errit Lough	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	
000609 Lisduff Turlough	Turloughs	
000610 Lough Croan Turlough	Turloughs	
000611 Lough Funshinagh	Turloughs	
000612 Mullygollan Turlough	Turloughs	
000641 Ballyduff/Clonfinane Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	

Site Name (Site Code)	Annex I habitat	Annex II Species
	Bog woodland	
000647 Kilcarren-Firville Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
000919 Ridge Road, Sw Of Rapemills	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites)	
000996 Ballyvaughan Turlough	Turloughs	
001529 Lough Cahasy, Lough Baun And Roonah Lough	Coastal lagoons Shifting dunes along the shoreline with Ammophila arenaria (white dunes) Perennial vegetation of stony banks	
001536 Mocorha Lough	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	
001625 Castlesampson Esker	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites) Turloughs	
001637 Four Roads Turlough	Turloughs	
001683 Liskeenan Fen	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	
001776 Pilgrim's Road Esker	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites)	
001912 Glendree Bog	Blanket bog (active only)	
001932 Mweelrea/Sheeffry/Erriff Complex	Coastal lagoons Annual vegetation of drift lines Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Embryonic shifting dunes Shifting dunes along the shoreline with Ammophila arenaria (white dunes) Atlantic decalcified fixed dunes (Calluno-Ulicetea) Dunes with Salix repens ssp.argentea (Salix arenariae) Machairs (in Ireland) Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Northern Atlantic wet heaths with Erica tetralix European dry heaths Alpine and Boreal heaths Juniperus communis formations on heaths or calcareous grasslands Blanket bog (active only) Transition mires and quaking bogs Alkaline fens Petrifying springs with tufa formation (Cratoneurion) Siliceous rocky slopes with chasmophytic vegetation Calcareous rocky slopes with chasmophytic vegetation Mediterranean salt meadows (Juncetalia maritimi) Natural dystrophic lakes and ponds Depressions on peat substrates of the Rhynchosporion	*Salmo salar* *Lutra lutra* *Margaritifera margaritifera* *Vertigo geyeri* *Vertigo angustior* *Petalophyllum ralfsii* *Najas flexilis*
002126 Pollagoona Bog	Blanket bog (active only)	

Site Name (Site Code)	Annex I habitat	Annex II Species
002157 Newgrove House		*Rhinolophus hipposideros*
002165 Lower River Shannon	Estuaries Mudflats and sandflats not covered by seawater at low tide Coastal lagoons Vegetated sea cliffs of the Atlantic and Baltic coasts Salicornia and other annuals colonizing mud and sand Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Mediterranean salt meadows (Juncetalia maritimi) Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Sandbanks which are slightly covered by sea water all the time Large shallow inlets and bays Reefs Perennial vegetation of stony banks Spartina swards (Spartinion maritimae) Molinia meadows on calcareous, peaty or clavey-silt-laden soils (Molinion caeruleae) Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	*Lampetra fluviatilis* *Lampetra planeri* *Petromyzon marinus* *Salmo salar* *Tursiops truncatus* *Lutra lutra* *Margaritifera margaritifera*
002214 Killeglan Grassland	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(important orchid sites)	
002245 Old Farm Buildings, Ballymacrogan		*Rhinolophus hipposideros*
002246 Ballycullinan, Old Domestic Building		*Rhinolophus hipposideros*
002247 Toonagh Estate		*Rhinolophus hipposideros*
002298 River Moy	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion Old sessile oak woods with Ilex and Blechnum in British Isles Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	*Salmo salar* *Petromyzon marinus* *Lampetra planeri* *Lutra lutra* *Austropotamobius pallipes*
002312 Slieve Bernagh Bog	Blanket bog (active only) Northern Atlantic wet heaths with Erica tetralix European dry heaths	
002314 Old Domestic Buildings, Rylane		*Rhinolophus hipposideros*
002320 Kildun Souterrain		*Rhinolophus hipposideros*
002338 Drumalough Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	
002339 Ballynamona Bog And Corkip Lough	Turloughs Degraded raised bogs still capable of natural regeneration Bog woodland Active raised bogs Depressions on peat substrates of the Rhynchosporion	
002353 Redwood Bog	Degraded raised bogs still capable of natural regeneration Active raised bogs Depressions on peat substrates of the Rhynchosporion	

2.3 Assessment Criteria

2.3.1 Is the proposed Variation Necessary to Management of Natura 2000 Sites?

Under the Habitats Directive, Plans that are directly connected with or necessary to the management of a Natura 2000 site do not require AA. For this exception to apply, management is required to be interpreted narrowly as nature conservation management in the sense of Article 6(1) of the Habitats Directive. This refers to specific measures to address the ecological requirements of annexed habitats and species (and their habitats) present on a site (s). The relationship should be shown to be direct and not a by-product of the plan, even if this might result in positive or beneficial effects for a site (s).

The Development Plan as varied includes measures that will benefit the protection of Natura 2000 sites however its primary purpose is not generally the nature conservation management of the sites, but to provide for development. Therefore, the Development Plan as varied is not considered by the Habitats Directive to be directly connected with or necessary to the management of Natura 2000 sites.

2.3.2 Direct, Indirect or Secondary Impacts

In general, any development that may result from implementation of the proposed Variation, such as construction of housing, roads, rail, water and wastewater infrastructure, gas, electricity and telecommunications infrastructure could lead to a number of impacts depending on where development is sited, the scale of development and types and quantities of emissions. In practice and as outlined in the EU document "*Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*", and the national guidance document '*Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*', impacts that could potentially occur through the implementation of the proposed Variation can be categorised under a number of headings

- Loss/Reduction of habitat area – e.g. as a result of development, transport infrastructure etc
- Disturbance to key species – e.g. as a result of increased public access to protected sites and increased recreational pressure such as development of footpaths and cycleways particularly along the coast.
- Habitat or species fragmentation – e.g. through land intensification and urbanisation
- Reduction in species density
- Changes in key indicators of conservation value such as decrease in water quality and quantity – e.g. through inadequate wastewater treatment, runoff of pollutants during construction and operational phases of development.

It should also be noted that the Galway County Development Plan 2009-2015 has already been subject to appropriate assessment. The present assessment examines only those impacts that will arise through the changes to the Plan brought about by the Core Strategy Variation. Tables 2.3a-b and 3.4a-b outline the types of impacts that may occur through development of the Hub town of Tuam, the key towns of Ballinasloe, Loughrea, Oranmore, Athenry, Gort, the Metropolitan Satellites of Barna, Claregalway and Moycullen and the Lower Tier Towns/Villages of Headford, Craughwell, Clifden, Portumna, Carraroe, Kinvara, Spiddal, Oughterard, Clarinbridge and Mountbellew.

A review of the waste water treatment capacity within these settlements was also carried out. It was found that there was limited or no wastewater capacity available in Oranmore, Athenry, Gort, Barna, Claregalway, Craughwell, Clifden, Carraroe, Kinvara, Spiddal, Oughterard, Clarinbridge and Mountbellew.

Table 2.3a: SPAs in County Galway

Site Name and code	Potential Impacts
Inner Galway Bay SPA	Development within Tuam, Loughrea, Barna, Moycullen, Craughwell, Kinvara, Clarinbridge and Athenry may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts on Inner Galway Bay SPA downstream of the discharge points. Changes in water quality may affect habitats on which bird species that inhabit the SPA depend, leading to reduction in species density. Development Oranmore, Clarinbridge and Barna may lead to disturbance impacts on bird species
Lough Corrib SPA	Development within Tuam, Headford, Oughterard and Claregalway may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts on Lough Corrib SPA downstream of the discharge point. Changes in water quality may affect habitats on which bird species that inhabit the SPA depend, leading to reduction in species density.
Lough Cutra SPA	Development within the Key town of Gort may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts downstream of the discharge point in the Lough Cutra SPA. Changes in water quality may affect habitats on which bird species that inhabit the SPA depend, leading to reduction in species density.
Lough Derg (Shannon) SPA	Development Ballinasloe and Portumna may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts on downstream of the discharge point. Changes in water quality may affect habitats on which bird species that inhabit the SPA depend, leading to reduction in species density. Development in Portumna may lead to disturbance of bird species.
Lough Mask SPA	No impacts anticipated
High Island (Galway) SPA	No impacts anticipated
Lough Scannive SPA	No impacts anticipated
Rahasane Turlough SPA	No impacts anticipated
Middle Shannon Callows SPA	Development within the Hub town of Ballinasloe may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts on downstream of the discharge point. Changes in water quality may affect habitats on which bird species that inhabit the SPA depend, leading to reduction in species density.
River Suck Callows SPA	Ballinasloe is located on the banks of the River Suck. Development within the Hub town of Ballinasloe may lead to habitat loss and disturbance of species. Development may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts downstream of the discharge point. Changes in water quality may affect habitats on which bird species that inhabit the SPA depend, leading to reduction in species density. Wastewater from Mountbellew discharges to the Castelgar River, which flows into the River Suck Callows SPA.
Coole-Garryland SPA	Development within the nearby Key town of Gort has the potential to lead to disturbance impacts on bird species in this SPA
Inishmore SPA	No impacts anticipated
Slyne Head Islands SPA	No impacts anticipated
Lough Rea SPA	Loughrea is located adjacent to Lough Rea. Development within the Key town of Loughrea may lead to habitat loss and disturbance of species. Development may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts downstream of the discharge point. Changes in water quality may affect habitats on which bird species that inhabit the SPA depend, leading to reduction in species density.
Cregganna Marsh SPA	Development within the Key town of Oranmore may lead to disturbance impacts on bird species as well as the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts on Inner Galway Bay SPA downstream of the discharge point. Changes in water quality may affect habitats on which bird species that inhabit the SPA depend, leading to reduction in species density.
Slieve Aughty Mountains SPA	No impacts anticipated
Cruagh Island SPA	No impacts anticipated

Table 2.3b: SPAs within 15km of the Boundary of County Galway

Site Name and Code	Potential Impacts
Lough Ree SPA	No impacts anticipated
Bellanagare Bog SPA	No impacts anticipated
Lough Croan Turlough SPA	No impacts anticipated
Four Roads Turlough SPA	No impacts anticipated
Cliffs of Moher SPA	No impacts anticipated
Ballyallia Lough SPA	No impacts anticipated
River Little Brosna Callows SPA	No impacts anticipated
Mongan Bog SPA	No impacts anticipated
All Saints Bog SPA	No impacts anticipated
Dovegrove Callows SPA	No impacts anticipated
Cross Lough (Killadoon) SPA	No impacts anticipated
River Shannon And River Fergus Estuaries SPA	Development within the Hub town of Ballinasloe may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts on downstream of the discharge point. Changes in water quality may affect habitats on which bird species that inhabit the SPA depend, leading to reduction in species density.

Table 2.4a: SACs in County Galway

Site Name (Site Code)	Potential Impacts
Inishmaan Island SAC	No impacts anticipated
Inishmore Island SAC	No impacts anticipated
River Shannon Callows SAC	Development within the Hub town of Ballinsloe may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts downstream of the discharge point. Changes in water quality may affect habitats leading to habitat loss and reduction in species density.
Coolcam Turlough SAC	No impacts anticipated
Barroughter Bog SAC	No impacts anticipated
Caherglassaun Turlough SAC	No impacts anticipated
Castletaylor Complex SAC	No impacts anticipated
Cloonmoylan Bog SAC	No impacts anticipated
Coole-Garryland Complex SAC	No impacts anticipated
Croaghill Turlough SAC	No impacts anticipated
Derrycrag Wood Nature Reserve SAC	No impacts anticipated
Galway Bay Complex SAC	Development within Tuam, Loughrea, Oranmore, Barna, Moycullen, Craughwell, Kinvara, Clarinbridge and Athenry may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts downstream of the discharge point. Changes in water quality may affect habitats leading to habitat loss and reduction in species density.
Inishbofin and Inishshark SAC	No impacts anticipated
Kilsallagh Bog SAC	No impacts anticipated
Kiltartan Cave (Coole) SAC	No impacts anticipated
Levally Lough SAC	No impacts anticipated
Lisnageeragh Bog and Ballinastack Turlough SAC	No impacts anticipated
Lough Corrib SAC	Development within Tuam, Moycullen, Oughterard and Claregalway may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts downstream of the discharge point. Changes in water quality may affect habitats leading to habitat loss and reduction in species density. Development within Moycullen and Claregalway may lead to direct habitat losses and disturbance of species such as otter.
Lough Cutra SAC	No impacts anticipated
Lough Lurgeen Bog/Glenamaddy Turlough SAC	No impacts anticipated
Lough Rea SAC	Loughrea is located adjacent to Lough Rea. Development within the Key town of Loughrea may lead to habitat loss and disturbance of species. Development may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts downstream of the discharge point.
Loughatorick South Bog SAC	No impacts anticipated
Peterswell Turlough SAC	No impacts anticipated
Pollnaknockaun Wood Nature Reserve SAC	No impacts anticipated
Rahasane Turlough SAC	No impacts anticipated
Rosroe Bog SAC	No impacts anticipated
Shankill West Bog SAC	No impacts anticipated
Slyne Head Islands SAC	No impacts anticipated
Tully Mountain SAC	No impacts anticipated
Ballymaglancy Cave, Cong SAC	No impacts anticipated
Lough Fingall Complex SAC	No impacts anticipated
Aughrusbeg Machair and Lake SAC	No impacts anticipated
Carrownagappul Bog SAC	No impacts anticipated
Cregduff Lough SAC	No impacts anticipated
Dog's Bay SAC	No impacts anticipated
Gortnandarragh Limestone Pavement SAC	No impacts anticipated
Inisheer Island SAC	No impacts anticipated
Kiltiernan Turlough SAC	No impacts anticipated
Omey Island Machair SAC	No impacts anticipated
Rusheenduff Lough SAC	No impacts anticipated
Ross Lake and Woods SAC	No impacts anticipated

Site Name (Site Code)	Potential Impacts
Rosturra Wood SAC	No impacts anticipated
Termon Lough SAC	No impacts anticipated
Lough Carra/Mask Complex SAC	No impacts anticipated
Sonnagh Bog SAC	No impacts anticipated
East Burren Complex SAC	No impacts anticipated
Maumturk Mountains SAC	No impacts anticipated
The Twelve Bens/Garraun Complex SAC	No impacts anticipated
Connemara Bog Complex SAC	No impacts anticipated
Slyne Head Peninsula SAC	No impacts anticipated
Corliskea/Trien/Cloonfelliv Bog SAC	No impacts anticipated
Kilkieran Bay and Islands SAC	Development within Carraroe may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts downstream of the discharge point. Changes in water quality may affect habitats leading to habitat loss and reduction in species density.
Lough Coy SAC	No impacts anticipated
Barnahallia Lough SAC	No impacts anticipated
Lough Nageeron SAC	No impacts anticipated
Murvey Machair SAC	No impacts anticipated
Tully Lough SAC	No impacts anticipated
Gortacarnaun Wood SAC	No impacts anticipated
Drummin Wood SAC	No impacts anticipated
Glenloughaun Esker SAC	No impacts anticipated
Lough Derg, North-East Shore SAC	Development within Ballinsloe and Portumna may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts downstream of the discharge point. Changes in water quality may affect habitats leading to habitat loss and reduction in species density.
Ardrahan Grassland SAC	No impacts anticipated
Kingstown Bay SAC	No impacts anticipated
Carrowbaun, Newhall and Ballylee Turloughs SAC	No impacts anticipated
Cahermore Turlough SAC	No impacts anticipated
Ballinduff Turlough SAC	No impacts anticipated
Williamstown Turloughs SAC	No impacts anticipated
Cregg House Stables, Crusheen SAC	No impacts anticipated
Camderry Bog SAC	No impacts anticipated
Curraghlehanagh Bog SAC	No impacts anticipated
Monivea Bog SAC	No impacts anticipated
Ardgraigue Bog SAC	No impacts anticipated

Table 2.4b: SACs within 15km of the Boundary of County Galway

Site Name (Site Code)	Potential Impacts
Ballyallia Lake	No impacts anticipated
Ballycullinan Lake	No impacts anticipated
Ballyogan Lough	No impacts anticipated
Black Head-Poulsallagh Complex	No impacts anticipated
Dromore Woods And Loughs	No impacts anticipated
Moneen Mountain	No impacts anticipated
Moyree River System	No impacts anticipated
Lough Ree	No impacts anticipated
Ardkill Turlough	No impacts anticipated
Carrowkeel Turlough	No impacts anticipated
Cloughmoyne	No impacts anticipated
Clyard Kettle-Holes	No impacts anticipated
Cross Lough (Killadoon)	No impacts anticipated
Greaghans Turlough	No impacts anticipated
Kilglassan/Caheravoostia Turlough Complex	No impacts anticipated
Shrule Turlough	No impacts anticipated
Skealoghan Turlough	No impacts anticipated
All Saints Bog And Esker	No impacts anticipated
Ferbane Bog	No impacts anticipated
Fin Lough (Offaly)	No impacts anticipated
Mongan Bog	No impacts anticipated
Moyclare Bog	No impacts anticipated
Ballinturly Turlough	No impacts anticipated
Bellanagare Bog	No impacts anticipated
Carrowbehy/Caher Bog	No impacts anticipated
Cloonchambers Bog	No impacts anticipated
Derrinea Bog	No impacts anticipated
Errit Lough	No impacts anticipated
Lisduff Turlough	No impacts anticipated
Lough Croan Turlough	No impacts anticipated
Lough Funshinagh	No impacts anticipated
Mullygollan Turlough	No impacts anticipated
Ballyduff/Clonfinane Bog	No impacts anticipated
Kilcarren-Firville Bog	No impacts anticipated
Ridge Road, Sw Of Rapemills	No impacts anticipated
Ballyvaughan Turlough	No impacts anticipated
Lough Cahasy, Lough Baun And Roonah Lough	No impacts anticipated
Mocorha Lough	No impacts anticipated
Castlesampson Esker	No impacts anticipated
Four Roads Turlough	No impacts anticipated
Liskeenan Fen	No impacts anticipated
Pilgrim's Road Esker	No impacts anticipated
Glendree Bog	No impacts anticipated
Mweelrea/Sheeffry/Erriff Complex	No impacts anticipated
Pollagoona Bog	No impacts anticipated
Newgrove House	No impacts anticipated
Lower River Shannon	Development within the Hub town of Ballinsloe may lead to the pollution of watercourses during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts downstream of the discharge point. Changes in water quality may affect habitats leading to habitat loss and reduction in species density.
Killeglan Grassland	No impacts anticipated
Old Farm Buildings, Ballymacrogan	No impacts anticipated
Ballycullinan, Old Domestic Building	No impacts anticipated
Toonagh Estate	No impacts anticipated
River Moy	No impacts anticipated
Slieve Bernagh Bog	No impacts anticipated
Old Domestic Buildings, Rylane	No impacts anticipated
Kildun Souterrain	No impacts anticipated
Drumalough Bog	No impacts anticipated
Ballynamona Bog And Corkip Lough	No impacts anticipated
Redwood Bog	No impacts anticipated

2.3.3 Elements of the proposed Variation with Potential to Give Rise to Significant Effects

In addition to screening Natura 2000 sites that potentially may be impacted by implementation of the Galway County Development Plan Core Strategy, the policies and objectives contained within the strategy have also been assessed. The assessment process identifies whether these policies and objectives are likely to cause any direct, indirect or secondary impacts (either alone or in combination with other plans or projects) on the Natura 2000 network sites. During this assessment a number of factors were taken into account including the sites' conservation objectives and known threats. The overall aim of the assessment is to attempt predict the consequences that can be *reasonably* foreseen by implementation of a policy or objective.

The policies and objectives contained within the sections of the Development Plan subject to the Core Strategy Variation were originally assessed as part of the Appropriate Assessment of the Galway County Development Plan 2009-2015. Where policies and objectives included in the Core Strategy do not differ significantly from those contained in the CDP, they are not reassessed. The results of the impact assessment are outlined in Tables 2.5 and 2.6. Any changes from the original text used in the Galway County Development Plan 2009-2015 are highlighted in red.

2.3.3.1 Component 1 of the Proposed Variation- Core Strategy and Spatial Planning

The first of two components comprising the Variation is to replace Section 2 - Spatial Planning Strategy - of the County Development Plan with a new Section 2 - Core Strategy and Spatial Planning. The provisions in this replacement chapter comprise Core Aims, Strategic Spatial Planning Policies and amended Strategic Spatial Planning Objectives.

Table 2.5: Assessment of Component 1 of the Proposed Variation - Core Strategy and Spatial Planning

Core Aims	**Impact Assessment**
1. To provide for the growth of County Galway towards a long term target population of up to 198,500 by 2022 and to distribute that part of the population growth anticipated up to 2016 in line with the settlement strategy as indicated in the West Regional planning guidelines, focusing a greater rate of growth in the Galway Gateway and the Hub town of Tuam. The continuing support for appropriately scaled development in key service towns, local service towns and villages in a sequential mannerwill remain a priority while recognising the role that new infrastructure and public transportation links will play in their future and in maintaining the viability of rural communities in the hinterlands of these towns and villages.	No changes to policy arising from variation to CDP. No further assessment required
2. To build on the regional-level linkages between County Galway, the Galway Gateway and other parts of the West Region by supporting the implementation of regional spatial strategies as set out in the West Regional Planning Guidelines 2010 and co-operating on areas of mutual planning interest;	No changes to policy arising from variation to CDP. No further assessment required
3. To ensure a high level of environmental protection in the implementation of the strategic aims and objectives of the plan through the observance of all legal requirements with regard to Strategic Environmental Assessment and Habitats Directive Assessment as appropriate.	New policy will prevent impacts on Natura 2000 network
Strategic Spatial Planning Policies	**Impact Assessment**
Policy SP1: The promotion and development of the Galway Gateway and Tuam as a Hub Town – a nationally significant urban centre, whose location and scale support the desired critical mass necessary to sustain strong levels of economic growth and prosperity in the West and a strong, independent hub to support the spatial strategy at national, regional and local level, together with improved connectivity between the gateway and hub to enhance their complementary status and development	No changes to policy arising from variation to CDP. No further assessment required
Policy SP2: Support the role of Ardaun, Garraun and the Galway Metropolitan Area as key elements in the future strategic growth of the Galway Gateway and Galway County in a plan led, sustainable	New policy included as part of the Core Strategy. No negative impacts anticipated from implementation of this

manner focussed on integrated land uses and transportation opportunities.	policy.
Policy SP3: The careful management of growth in the Galway Transportation and Land Use Study Area, in particular, the commuter zone of the greater Galway City area needs strong policies to shape and direct growth. This area corresponds with what the NSS describes as 'rural areas under strong urban influences'.	No changes to policy arising from variation to CDP. No further assessment required
Policy SP4: The co-ordination of new growth within the emerging new transportation and economic corridors in the key towns identified in the Core Strategy throughout the County in order to create more sustainable development patterns and to optimise public and private investment. The development of the Western Rail Corridor and new commuter services, together with significant road network improvement during the plan period will have a major impact on development and settlement patterns.	No changes to policy arising from variation to CDP. No further assessment required
Policy SP5: The development of Key Support Towns to serve rural areas. Throughout much of County Galway, there is a need to address the imbalance at County level and build on the strengths and scale of existing settlements and to assist in promoting, sustaining and diversifying the rural economy.	No changes to policy arising from variation to CDP. No further assessment required
Policy SP6: The protection and strengthening of vulnerable rural communities and the promotion of diverse and sustainable rural areas and villages. Significant residential growth has taken place in the form of ribbonised development on rural roads, in the hinterland of the City. The more peripheral areas of the County have continued to experience depopulation and economic decline, which has resulted in continuing rural decline and the loss of community services in small towns and villages. Further residential growth must be deployed in a manner consistent with sustainable principles and the balanced development of the County.	No changes to policy arising from variation to CDP. No further assessment required
Policy SP7: The protection and management of the areas and assets of the County that contribute to the unique visual and environmental character and sense of identity of the County and which underpin tourism, heritage and quality of life.	No changes to policy arising from variation to CDP. No further assessment required
Policy SP8: While it is accepted that gateway boundaries have been formally established, it is considered by Galway County Council, based on emerging patterns of development, settlement and economic and social ties, that the Galway M~~m~~etropolitan A~~a~~rea ~~of~~ associated with the Galway gateway ~~as defined by the Western Regional Authority (Map SP5, Page 19)~~ is an important, spatially definable area which is supported by ongoing investment in critical infrastructure, e.g., road, rail, water, waste water, electricity and gas investment which has and is taking place and which has provided the economic infrastructure to support the gateway. A key element in the development of the Galway gateway and associated Galway Metropolitan Area will be the preparation of an overarching framework plan which should be integrated into the County and City settlement strategies and ~~should~~ will incorporate plans for emerging development such as Ardaun, Briarhill and Garraun and the implementation of an integrated land use and transportation strategy (based on the Galway Transportation and Planning Study) and to incorporate balanced County development.	No significant changes to policy arising from variation to CDP that would affect the original assessment. No further assessment required
Strategic Spatial Planning Objectives	
Objective SP1:The Council will seek to direct development in such a manner as is appropriate to achieve the overall aims of the Core Strategy in line with the social, economic and environmental characteristics of the County and building on the strengths and attributes of the existing settlements, emerging transport patterns and communications and the distinctive characteristics of the identified rural areas of the County.	No changes to objective arising from variation to CDP. No further assessment required
Objective SP2: The Council will support and seek to secure investment in the necessary infrastructure to pursue the spatial and settlement strategies as set out herewith in this Plan.	No significant changes to objective arising from variation to CDP that would affect the original assessment. No further assessment required

Objective SP3: The Council will support and seek to secure investment for the advancement of the East Galway Waste Water Treatment Plant and the completion of the Western Rail Corridor and other critical enabling infrastructure identified as necessary to achieve the objectives of the Core Strategy during the plan period.	Construction and operation of infrastructure developed through the implementation of this objective could potentially have direct and/or indirect impacts on the Natura 2000 network through fragmentation of habitats or habitat loss and disturbance of species. Pollution of watercourses may occur during construction and through the discharge of treated wastewater. This in turn may lead to cumulative and indirect impacts on Natura sites downstream of the discharge point.
Objective SP4: The Council will investigate the potential for development of integrated transportation hubs at Tuam, Garraun and at Athenry to maximise the strategic integration of transport and rational land uses.	No changes to objective arising from variation to CDP. No further assessment required
Objective SP5: The Council will seek to manage development and interact with the relevant state bodies and private investors, in order to achieve key strategic objectives, particularly those that relate to the development of the strategic economic corridor. The Council will seek to control inappropriate development or development which may be incompatible with the achievement of key strategic objectives, particularly in relation to the implementation of the Core Strategy and development in the strategic economic corridor.	No significant changes to objective arising from variation to CDP that would affect the original assessment. No further assessment required
Objective SP6: The Council will have regard at all times to the environmental and ecological designations, characteristics and sensitivities in the pursuit of the proposed strategy.	No changes to objective arising from variation to CDP. No further assessment required
Objective SP7: Consider the preparation of sub-county local area plans for geographically cohesive areas such as the coastal belt, the City/County interface areas, south-eastern uplands, etc to bring about greater social, economic and environmental connectivity between settlements and their rural hinterlands.	No changes to objective arising from variation to CDP. No further assessment required
Objective SP8: The Council shall seek to review the Galway Transportation and Land Use Study within the lifetime of the County Development Plan 2009-2015 subject to funding and in cooperation with Galway City Council.	No changes to objective arising from variation to CDP. No further assessment required
Objective SP9: The council shall establish a monitoring and review mechanism to track the implementation of the Core Strategy through the various Local Area Plans and through key indicators for transportation, environmental monitoring and other factors relevant to the wider County Area.	New objective included as part of the Core Strategy. No negative impacts anticipated from implementation of this objective.
Objective SP10: The Council shall undertake a review of all statutorily required Local Area Plans within a year from the date of adoption of the Variation of the County Development Plan to ratify the Core Strategy and ensure that such Local Area Plans are adopted in line with the broad principles of the Core Strategy and the County Development Plan. Other Local Area Plans shall be reviewed in keeping with legislative requirements.	Preparation of local area plans may facilitate further development and growth within a town. Depending on a town's location and existing infrastructure, this may lead to loss of habitats, disturbance/loss of species and changes in water quality and quantity.

2.3.3.2 Component 2 of the Proposed Variation: Introduction of Core Strategy

The second component is to amend various parts of Section 3 - *Settlement Strategy* - of the County Development Plan to ensure that the County settlement strategy is consistent with the settlement hierarchy set out in the proposed Variation, the Regional Planning Guidelines for the West Region 2010 to 2022 and the National Spatial Strategy.

The provisions in this chapter comprise Strategic Settlement Policies and Strategic Settlement Objectives both of which relate to downward revised population allocations. The downward population allocations mean that the intensity of potential adverse environmental effects will be reduced.

Table 2.6: Assessment of Component 1 of the Proposed Variation - Core Strategy and Spatial Planning

Core Aims	Impact Assessment
Policy SS1: It will be the policy of the Council to recognise the role of Galway city and the Gateway ~~concept~~ as of social and economic growth in the County and in the wider Western Region. The Council will support the growth of the strategic settlements including Ardaun and Garraun within the Galway Metropolitan area.	No changes to policy arising from variation to CDP. No further assessment required
Policy SS2: It will be a key policy of the Council to secure the development of Tuam to fulfil its potential as a hub town, catering for the residential, employment, educational, social and retail needs of its target population and for the population of its wider hinterland in north and east Galway.	No changes to policy arising from variation to CDP. No further assessment required
Policy SS3: It will be the policy of Galway County Council to secure the sustainable growth of the key service towns of the county to become self –sufficient settlements and act as service centres for the inhabitants of their rural hinterlands	No changes to policy arising from variation to CDP. No further assessment required
Policy SS4: It will be the policy of Galway County Council to encourage and facilitate where possible, the sustainable, sequential and balanced development of existing settlements along the strategic emerging road and rail corridors as identified in the Core Spatial Strategy.	No significant changes to policy arising from variation to CDP that would affect the original assessment. No further assessment required
Policy SS5: It will be the policy of Galway County Council to support the development of rural areas in a balanced, sustainable manner, having regard to the social, economic and environmental characteristics of the area and its residents and in accordance with the relevant policies and objectives set out elsewhere in the Plan.	No changes to policy arising from variation to CDP. No further assessment required
Policy SS6: In the case of smaller settlements for which no specific plans are available, development shall be considered on the basis of its connectivity, capacity (social, cultural and economic) and compliance with the settlement strategy, good design, community gain (this requirement shall not apply to single houses) and proper planning and sustainable development.	No changes to policy arising from variation to CDP. No further assessment required
Policy SS7: In order to control the scale of development, a deviation in the allocated population of up to 20% will generally be acceptable, between 20% and 30% will be assessed in the context of the group of settlements and the growth experienced by each, over 30% generally will not be accepted. Regard will also be had to the rate of growth in each settlement.	No changes to policy arising from variation to CDP. No further assessment required
Strategic Settlement Objectives	
Objective SS1: Masterplans and/or Local Area Plans for Briarhill, Ardaun and Garraun will be developed as a priority and brought forward for adoption by the Council at the earliest opportunity within the lifetime of the Plan.	No changes to objective arising from variation to CDP. No further assessment required
Objective SS2: Local Area Plans or Development Boundaries will be prepared for all Settlements designated as ~~Local Service Centres~~ Lower Tier Towns.	No significant changes to objective arising from variation to CDP that would affect the original assessment. No further assessment required
Objective SS3: A Local Area Plan for the North Connemara area will be prepared.	No changes to objective arising from variation to CDP. No further assessment required
Objective SS4: Settlement guidelines or Action Area Plans/Local Area Plans for other key settlements in the ~~Gateway~~ Galway Metropolitan A~~a~~rea and along strategic public transportation corridors will be prepared as needed during the lifetime of the Plan.	No changes to objective arising from variation to CDP. No further assessment required
Objective SS5: An Action Area Plan for the off-shore Islands will be prepared.	No changes to objective arising from variation to CDP. No further assessment required
Objective SS6: A Local Area Plan for Kilcolgan will be prepared based on the Bearna Local Area Plan template.	No changes to objective arising from variation to CDP. No further assessment required
Objective SS7: To prepare a Local Area Plan as a guidance document for the Carnmore/Galway Airport area to guide future development.	No changes to objective arising from variation to CDP. No further assessment required

2.4 Conclusions

The likely impacts that will arise from the implementation of the proposed Variation have been examined in the context of a number of factors that could potentially affect the integrity of the Natura 2000 network. On the basis of the findings of this Screening for Appropriate Assessment, it is concluded that the proposed Variation:

(i) is not directly connected with or necessary to the management of a Natura 2000 site and

(ii) may have significant impacts on the Natura 2000 network.

Therefore, applying the Precautionary Principle and in accordance with Article 6(3) of the Habitats Directive, a Stage 2 Appropriate Assessment is required. That stage is set out in Section 3 of this report.

Section 3 Stage 2 Appropriate Assessment

3.1 Introduction

The main objective of this stage (Stage 2) in the AA is to determine whether the Plan as varied by the introduction of the Core Strategy (either alone or in combination with other plans, programmes and projects) would result in significant adverse impacts to the integrity of any Natura 2000 site with respect to the site's structure, function and/or conservation objectives.

The Stage 1 Screening has created lists of sites with potential to be affected by the Core Strategy. Therefore, a Stage 2 Appropriate Assessment is required. The potential adverse effects considered at this stage will either be effects occurring as a result of the application of the Core Strategy alone or in-combination with other plans, programmes and/or projects.

3.2 Other Plans and Programmes

Article 6(3) of the Habitats Directive requires an assessment of a plan or project to consider other plans or programmes that might, in combinations with the plan or project, have the potential to adversely impact upon Natura 2000 sites. Table 3.1 lists the plans or projects that may interact with the proposed Variation to cause in-combination effects to Natura 2000 sites. The plans or projects are listed according to a spatial hierarchy of International, National, Regional/Local Projects and Plans.

Table 3.1 Plans & Projects Likely to Cause In-Combination Effects

International		
Directive	**Purpose**	**In-combination Effects**
EU Water Framework Directive (2000/60/EC)	Objectives seek to maintain and enhance the quality of all surface waters in the EU.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
EU Freshwater Fish Directive (78/659/EEC)	Objectives seek to protect those fresh water bodies identified by Member States as waters suitable for sustaining fish populations. For those waters it sets physical and chemical water quality objectives for salmonid waters and cyprinid waters.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
EU Groundwater Directive (2006/118/EC)	This directive establishes a regime, which sets underground water quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
EU Floods Directive (2007/60/EC)	The Floods Directive applies to river basins and coastal areas at risk of flooding. With trends such as climate change and increased domestic and economic development in flood risk zones, this poses a threat of flooding in coastal and river basin areas.	Potential in-combination impacts may arise where there is a requirement to provide for new infrastructure such as flood walls or flood defences. Avoidance on, or near protected areas should be implemented or where this is not possible, favouring infrastructure that carries a lower risk of damage to protected areas should be emphasised in the plan.
Nitrates Directive (91/676/EEC)	This Directive has the objective of reducing water pollution caused or induced by nitrates from agricultural sources and preventing further pollution.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
The Urban Wastewater Treatment Directive (91/271/EEC)	The primary objective is to protect the environment from the adverse effects of	No risk of likely significant in-combination effects will result as the

	discharges of urban wastewater, by the provision of urban wastewater collecting systems (sewerage) and treatment plants for urban centres. The Directive also provides general rules for the sustainable disposal of sludge arising from wastewater treatment.	primary purpose of the Directive is to improve environmental quality.
Sewage Sludge Directive (86/278/EEC)	Objective is to encourage the appropriate use of sewage sludge in agriculture and to regulate its use in such a way as to prevent harmful effects on soil, vegetation, animals and man. To this end, it prohibits the use of untreated sludge on agricultural land unless it is injected or incorporated into the soil.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
The Integrated Pollution Prevention Control Directive (96/61/EC)	Objective is to achieve a high level of protection of the environment through measures to prevent or, where that is not practicable, to reduce emissions to air, water and land from industrial sources.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
National		
Plan	**Purpose**	**In-combination Effects**
National Development Plan 2007-2013	Objectives of the NDP are to promote more balanced spatial and economic development.	Potential in-combination impacts may arise where there is a requirement to provide for new infrastructure.
National Spatial Strategy 2002-2020	Objectives of the NSS are to achieve a better balance of social, economic and physical development across Ireland, supported by more effective planning.	Potential in-combination impacts may arise where there is a requirement to provide for new infrastructure.
Regional		
West Regional Planning Guidelines 2010-2022	Policy document which aims to direct the future growth of the Greater Dublin Area over the medium to long term and works to implement the strategic planning framework set out in the National Spatial Strategy (NSS)	Potential in-combination impacts may arise where there is a requirement to provide for new infrastructure.
	Local	
Mayo County Development Plan 2008 - 2014 Roscommon County Development Plan 2008 - 2014 Offaly County Development Plan 2009 - 2015 North Tipperary County Development Plan 2010 - 2016 Clare County Development Plan 2011 - 2017		Galway shares its boundary with a number of midland counties. Furthermore a number of Natura 2000 sites are located in more than one county. Similar development plans are in existence throughout the region, accordingly these plans acting alone or in combination can have a cumulative impact on Natura 2000 sites located within County Galway.

3.3 Conservation Objectives

It is the goal of NPWS to draw up conservation plans for all areas designated for nature conservation. These plans will, among other things, set clear objectives for the conservation of the features of interest within a site. Where no Management Plan is yet available, NPWS have provided generic Conservation Objectives for Natura 2000 Sites

One generic Conservation Objectives has been provided for SPAs, as follows:

- To maintain the bird species of special conservation interest for which the SPA has listed, at favourable conservation status.

Generic Conservation Objectives for cSACs have been provided as follows:

- To maintain Annex I habitats and Annex II species for which the cSAC has been selected at favourable conservation status.
- To maintain the extent species richness and biodiversity of the entire site.
- To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Favourable conservation status of a species can be described as being achieved when: "*population data on the species concerned indicate that it is maintaining itself, and the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis*."

Favourable conservation status of a habitat can be described as being achieved when: '*its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable*'.

Conservation Objectives, where available, were downloaded from the NPWS website (www.npws.ie) in May 2011. Conservation Objectives for those sites screened in at Stage 1 Screening are given in Table 3.2 and 3.3.

Table 3.2: Conservation Objectives SPAs

Site Name	Conservation Objectives
Inner Galway Bay SPA	Generic Objectives Apply
Lough Corrib SPA	Generic Objectives Apply
Lough Cutra SPA	Generic Objectives Apply
Lough Derg (Shannon) SPA	Generic Objectives Apply
Middle Shannon Callows SPA	Objective 1: To maintain the favourable conservation status of the Special Conservation Interests of the SPA. • Whooper Swan (*Cygnus cygnus*) [A038] • Wigeon (*Anas penelope*) [A050] • Corncrake (*Crex crex*) [A122] • Golden Plover (*Pluvialis apricaria*) [A140] • Lapwing (*Vanellus vanellus*) [A142] • Black-tailed Godwit (*Limosa limosa*) [A156] • Black-headed Gull (*Larus ridibundus*) [A179] • Wetlands & Waterbirds [A999] Objective 2: To maintain the extent, species richness and biodiversity of the entire site. Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.
River Suck Callows SPA	Generic Objectives Apply
Coole-Garryland SPA	Objective 1: To maintain the favourable conservation status of the Qualifying Interests of the SAC, or the Special Conservation Interests of the SPA. • Whooper Swan (*Cygnus cygnus*) [A038] Objective 2: To maintain the extent, species richness and biodiversity of the entire site. Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.
Lough Rea SPA	Generic Objectives Apply
Cregganna Marsh SPA	Generic Objectives Apply

Site Name	Conservation Objectives
River Shannon And River Fergus Estuaries SPA	Generic Objectives Apply

Table 3.3: Conservation Objectives for SACs

Site Name (Site Code)	Conservation Objectives
River Shannon Callows SAC	Objective 1: To maintain the favourable conservation status of the Qualifying Interests of the SAC. • Otter (Lutra lutra) [1355] • Molinia meadows on calcareous, peaty or clavey-silt-laden soils (Molinion caeruleae) [6410] • Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510] • Limestone pavements [8240] • Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] Objective 2: To maintain the extent, species richness and biodiversity of the entire site. Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.
Galway Bay Complex SAC	Objective 1: To maintain the favourable conservation status of the Qualifying Interests of the SAC. • Mudflats and sandflats not covered by seawater at low tide [1140] • Coastal lagoons [1150] • Large shallow inlets and bays [1160] • Reefs [1170] • Perennial vegetation of stony banks [1220] • Salicornia and other annuals colonizing mud and sand [1310] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Otter (Lutra lutra) [1355] • Common seal (Phoca vitulina) [1365] • Mediterranean salt meadows (Juncetalia maritimi) [1410] • Turloughs [3180] • Juniperus communis formations on heaths or calcareous grasslands [5130] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco • Brometalia)(*important orchid sites) [6210] • Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210] • Alkaline fens [7230] Objective 2: To maintain the extent, species richness and biodiversity of the entire site. Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.
Lough Corrib SAC	Objective 1: To maintain the favourable conservation status of the Qualifying Interests of the SAC. • Freshwater pearl mussel (Margaritifera margaritifera) [1029] • White-clawed crayfish (Austropotamobius pallipes) [1092] • Sea lamprey (Petromyzon marinus) [1095] • Brook lamprey (Lampetra planeri) [1096] • Salmon (Salmo salar) [1106] • Lesser horseshoe bat (Rhinolophus hipposideros) [1303] • Otter (Lutra lutra) [1355] • Shining sickle moss (Drepanocladus vernicosus) [1393] • Slender naiad (Najas flexilis) [1833] • Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110] • Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]

Site Name (Site Code)	Conservation Objectives
	• Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites) [6210] • Molinia meadows on calcareous, peaty or clavey-silt-laden soils (Molinion caeruleae) [6410] • Active raised bogs [7110] • Degraded raised bogs still capable of natural regeneration [7120] • Depressions on peat substrates of the Rhynchosporion [7150] • Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210] • Petrifying springs with tufa formation (Cratoneurion) [7220] • Alkaline fens [7230] • Limestone pavements [8240] • Old sessile oak woods with Ilex and Blechnum in British Isles [91A0] • Bog woodland [91D0] Objective 2: To maintain the extent, species richness and biodiversity of the entire site. Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.
Lough Rea SAC	Objective 1: To maintain the favourable conservation status of the Qualifying Interests of the SAC. • Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140] Objective 2: To maintain the extent, species richness and biodiversity of the entire site. Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.
Kilkieran Bay and Islands SAC	Objective 1: To maintain the favourable conservation status of the Qualifying Interests of the SAC. • Mudflats and sandflats not covered by seawater at low tide [1140] • Coastal lagoons [1150] • Large shallow inlets and bays [1160] • Reefs [1170] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Otter (Lutra lutra) [1355] • Common seal (Phoca vitulina) [1365] • Mediterranean salt meadows (Juncetalia maritimi) [1410] • Slender naiad (Najas flexilis) [1833] • Machairs [21A0] • Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510] Objective 2: To maintain the extent, species richness and biodiversity of the entire site. Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.
Lough Derg, North-East Shore SAC	Objective 1: To maintain the favourable conservation status of the Qualifying Interests of the SAC. • Juniperus communis formations on heaths or calcareous grasslands [5130] • Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210] • Alkaline fens [7230] • Limestone pavements [8240] • Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicionalbae) [91E0] • Taxus baccata woods of the British Isles [91J0] Objective 2: To maintain the extent, species richness and biodiversity of the entire site. Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Site Name (Site Code)	Conservation Objectives
Lower River Shannon	Objective 1: To maintain the favourable conservation status of the Qualifying Interests of the SAC. • Freshwater pearl mussel (Margaritifera margaritifera) [1029] • Sea lamprey (Petromyzon marinus) [1095] • Brook lamprey (Lampetra planeri) [1096] • River lamprey (Lampetra fluviatilis) [1099] • Salmon (Salmo salar) [1106] • Sandbanks which are slightly covered by sea water all the time [1110] • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Coastal lagoons [1150] • Large shallow inlets and bays [1160] • Reefs [1170] • Perennial vegetation of stony banks [1220] • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] • Salicornia and other annuals colonizing mud and sand [1310] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Bottle-nosed dolphin (Tursiops truncatus) [1349] • Otter (Lutra lutra) [1355] • Mediterranean salt meadows (Juncetalia maritimi) [1410] • Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] • Molinia meadows on calcareous, peaty or clavey-silt-laden soils (Molinion caeruleae) [6410] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] Objective 2: To maintain the extent, species richness and biodiversity of the entire site. Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

3.4 Potential Significant Effects

The impacts that may occur through the implementation of the Core Strategy Variation have been previously outlined in Section 2.3.2 of this NIS. These impacts may be considered significant where inappropriate development takes place either within or close to a Natura 2000 site. Such development either in isolation or in combination with other similar developments can potentially lead to significant adverse impacts on the environment with long term consequences. Such impacts may be through direct habitat loss or through point source emissions leading to a deterioration in water quality.

Any increase in population within the towns and settlements affected by the Core Strategy Variation will increase the loading on the existing wastewater infrastructure. In the absence of adequate treatment, discharges from such plants can potentially increase the nutrient loading on receiving waters with direct, long term and adverse consequences for the aquatic environment.

It is therefore concluded that the implementation of the Core Strategy Variation has the potential to cause long term, direct and indirect adverse impacts on the protection and conservation of Natura 2000 sites.

3.5 Integrity of Site Checklist

Generally as part of a Stage 2 Appropriate Assessment a checklist of site integrity is carried out. This aids in determining whether a plan will have a significant adverse effect on a Natura 2000 site. This checklist is taken from "*Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC".*

Table 3.4: Integrity of Site Checklist

Conservation objectives	
Does the project or plan have the potential to:	**Yes/No**
Cause delays in progress towards achieving the conservation objectives of the site?	Yes
Interrupt progress towards achieving the conservation objectives of the site?	Yes
Disrupt those factors that help to maintain the favourable conditions of the site?	Yes
Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site?	Yes
Other indicators - Does the project or plan have the potential to:	
Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem?	Yes
Change the dynamics of the relationships (between, for example, soil and water or plants and animals) that define the structure and/or function of the site?	Yes
Interfere with predicted or expected natural changes to the site (such as water dynamics or chemical composition)?	Yes
Reduce the area of key habitats?	Yes
Reduce the population of key species?	Yes
Change the balance between key species?	Yes
Reduce diversity of the site?	Yes
Result in disturbance that could affect population size or density or the balance between key species?	Yes
Result in fragmentation?	Yes
Result in loss or reduction of key features (e.g. tree cover, tidal exposure, annual flooding, etc ?	Yes

Section 4 Mitigation Measures

4.1 Introduction

Where a likely significant adverse effect has been identified during an Appropriate Assessment or cannot conclusively be ruled out, it may be possible to proceed with a proposal where mitigation measures can be implemented to address the adverse effect. This section outlines the mitigation measures proposed.

4.2 Ecology

The propose Variation shall support the objectives and actions contained in the County Galway Biodiversity Action Plan 2008 - 2013 (Galway County Council, 2008) (Implemented in the Galway CDP through policy HL4)

No projects giving rise to significant adverse direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this propose Variation (either individually or in combination with other plans or projects)[2]. (Implemented in the Galway CDP through policies HL31 to HL 35)

All subsequent plan-making and adoption of plans under the control of Galway County Council arising from this proposed Variation will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. (Implemented in the Galway CDP through policy HL46)

Galway County Council will set up procedures to ensure that any development, project, etc would take cognisance of the existing impacts on Natura 2000 sites and assess the cumulative and "in combination" effects that said plans and projects may have on any Natura 2000 site and to ensure compliance with the requirements of Article 6 of the Habitats Directive. (Implemented in the Galway CDP through policy HL47)

No ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity are to be lost without remediation as a result of implementation of the CDP. (Implemented in the Galway CDP through policy HL48)

Galway County Council shall protect wetlands, and associated surface and groundwater systems within the Plan area. (Implemented in the Galway CDP through policy HL49)

Galway County Council shall ensure that, in the supply of services and in zoning of lands and authorisation of development, the threatened habitats and species* which occur within and adjoining the Plan area are not placed under further risk of deterioration (habitats) or reduction in population size (species). *As identified in the National Parks and Wildlife "*The Status of EU Protected Habitats and Species in Ireland", (NPWS, Department of the Environment, Heritage and Local Government, 2008)*. Galway County Council shall ensure that plan formulation and development control shall take into account the relevant "*Major Pressures reported in the assessment of Habitats and Species" and the "Main Objectives Over The Coming Five Years* a*nd Beyond"* contained in the above publication. (Implemented in the Galway CDP through policy HL50)

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[2] Except as provided for in Section 6(4) of the Habitats Directive, viz.There must be:

(a) no alternative solution available,

(b) imperative reasons of overriding public interest for the plan to proceed; and

(c) adequate compensatory measures in place.

4.3 Water Protection

Galway County Council shall address the significant water management issues identified in the Water Matters Consultation publications for the relevant RBDs. (Implemented in the Galway CDP through policy HL88)

The relevant policies and objectives of the Western and Shannon River Basin Management Plans and associated Programmes of Measures shall be integrated into the Plan through amendment or otherwise. (Implemented in the Galway CDP through policy HL89)

Galway County Council shall ensure that the ongoing development of Towns and their Environs are undertaken in such a way so as not to compromise the quality of surface water (and associated habitats and species) and groundwater within the zone of influence of the Development Plan area. (Implemented in the Galway CDP through policy HL90)

Landuses shall not give rise to the pollution of ground or surface waters during the construction or operation of developments. This shall be achieved through the adherence to best practice in the design, installation and management of systems for the interception, collection and appropriate disposal or treatment of all surface waters and effluents. (Implemented in the Galway CDP through policy HL91)

4.4 Waste Water

A review of waste water treatment capacity found that there was limited to no wastewater capacity available in Oranmore, Athenry, Gort, Barna, Claregalway, Craughwell, Clifden, Carraroe, Kinvara, Spiddal, Oughterard, Clarinbridge and Mountbellew. In order to mitigate impacts on water quality through development within these towns the following mitigation measures shall be adhered to:

- Development under the Plan shall be preceded by sufficient capacity in the public waste water treatment plants and appropriate extensions in the existing public waste water treatment catchments. (Implemented in the Galway CDP through policy IS15)
- Galway County Council shall implement the relevant recommendations set out in *Urban Waste Water Discharges in Ireland for Population Equivalents Greater than 500 Persons – A Report for the Years 2004* and 2005 *Office of Environment Enforcement- EPA, 2007*. (Implemented in the Galway CDP through policy IS16)
- Galway County Council shall provide a waste water treatment plant to meet current water quality standards, with adequate capacity to treat foul drainage arising from the drainage network associated with the WWTP Clifden area. Temporary waste water treatment facilities will be considered in the interim and provided in the event of any new development that would add to the waste loading being permitted. No new development that would add to the existing waste water treatment facility will be permitted. (Implemented in the Galway CDP through policy IS17)
- Galway County Council shall examine the feasibility of connecting of unsewered, areas including individual properties/ premises, serviced by septic tanks to existing and planned sewer networks. (Implemented in the Galway CDP through policy IS18)

Section 5 Conclusion

Stage 1 Screening and Stage 2 Appropriate Assessment of the Galway County Development Plan Core Strategy Variation has been carried out. Implementation of the Core Strategy Variation has the potential to result in impacts to the integrity of the Natura 2000 network, if unmitigated.

The risks to the safeguarding and integrity of the qualifying interests and conservation objectives of the Natura 2000 network have been addressed by the inclusion of a mitigation measures that will prioritise the avoidance of impacts in the first place and mitigate impacts where these cannot be avoided. In addition, all lower level plans arising through the implementation of the Core Strategy Variation will themselves be subject to Appropriate Assessment when further details of design and location are known.

Having incorporated mitigation measures, it is considered that the proposed Variation will not have a significant adverse effect on the integrity of the Natura 2000 network.