

Strategic Environmental Assessment Statement of the County Galway Wind Energy Strategy

SEA Statement
October 2011

Comhairle Chontae na Gaillimhe
Galway County Council



MINOGUE & ASSOCIATES
ENVIRONMENTAL & HERITAGE CONSULTANTS
www.minogueandassociates.com



1.1.2 Background to current Wind Energy Strategy in County Development Plan 2009 to 2015

Galway County Council (GCC) has prepared a **Wind Energy Strategy (WES)** for County Galway. The strategy provides strategic direction to encourage renewable energy and to guide the siting and design of wind energy developments in appropriate locations within the County. County Galway has significant wind resources and a key priority of the WES is to identify sites of strategic, national and regional importance that have the potential to accommodate wind energy development.

The WES revises and updates the areas of wind farm potential identified in the *Galway County Development Plan (GCDP) 2009-2015*. This has been undertaken in accordance with Objective IS19 of the GCDP and accordingly reviews areas of wind farm potential having regard to protected sites, habitats and species and other environmental, landscape, infrastructural and settlement considerations. The WES has been adopted as a variation to the existing GCDP 2009-2015 following consideration of written submissions received from the public and other stakeholders.

The existing Wind Resource Zones identified in the GCDP were developed from research undertaken as part of the *Landscape and Landscape Character Assessment for Galway County 2002* prepared on behalf of GCC, which was used to identify appropriate areas for wind farm development. Therefore, the key considerations were the landscape and visual impacts of wind farm developments. Wind potential areas were identified as Strategic Areas, Areas for Consideration and No Go Areas.

In undertaking the current strategy, landscape and visual considerations have been considered in conjunction with a range of other factors, including the need to achieve greater energy security, achieving commitments at national and international level regarding reductions in greenhouse gases, promoting renewable energy, protected areas of high biodiversity and other environmental considerations. This WES will supersede the earlier guidance and will guide development for wind farms within the County during the lifetime of the GCDP 2009-2015.

This SEA and HDA have been prepared in tandem with, and have informed the draft WES. This WES builds upon existing guidance in the GCDP 2009-2015, taking account of updated national and regional planning guidelines, strategies and policy documents. It is also informed by issues of particular national, European and international environmental importance that have evolved, and are now accepted as being critical to the formulation and implementation of sustainable development, such as climate change, renewable and alternative energy.

This WES designates areas as being: a) Strategic Areas, b) Acceptable in Principle, c) Open for Consideration, and d) Not Normally Permissible. The total land area proposed as Strategic is 5,393 hectares and the area proposed as Acceptable in Principle is 6,515 hectares. The area identified as Open for Consideration is 108,000ha. Figure 5A presents the Wind Energy Areas as adopted by Galway County Council on 21st September 2011.

- Appropriate development of wind energy to help meet EU targets on renewable energy

The draft SEA ER provided baseline information on all the SEA parameters (Chapter Four) and Chapters Seven Impacts and Eight Mitigation Measures in particular addressed the above environmental issues.

Acknowledgements were received from the following agencies:

- Department of Communications, Energy and Natural Resources
- Office of the Minister for Agriculture, Fisheries and Food
- Office of the Minister, Environment, Heritage and Local Government
- Office of the Tánaiste and Minister for Education and Skills
- Minister for Enterprise, Trade and Innovation
- Dublin Airport Authority (no comment to make at this time)

Please note that certain functions have been transferred to different departments since the initial consultation took place – ie: transfer to Heritage to the Department of Arts.

2.1.1 SEA Scoping and Consultation

Following the screening process, a scoping exercise was undertaken by Minogue and Associates. This established the scope and extent of the Environmental Report and facilitated consultation with the designated statutory consultees- the EPA, DoEHLG and the Department of Communications, Marine and Natural Resources (DCMNR). In addition, a further 16 non statutory consultees were consulted.

At the outset of the scoping process, statutory and non statutory consultees were consulted in the form of a letter outlining the new wind energy strategy, its intended lifespan, and a map showing the existing wind energy designations from the Galway County Development Plan 2005 to 2011. Thereafter, a number of informal follow up meetings took place with Galway County Council, the EPA and the National Parks and Wildlife Service (NPWS).

2.1.2 Environmental Issues raised during the scoping process

The Scoping Consultation document expressed the view that the draft WES has the potential to impact on a broad range of environmental components. Submissions were received from the following:

- EPA
- DoEHLG
- Inland Fisheries Ireland
- West Regional Authority
- Clare County Council
- Roscommon County Council
- Mayo County Council
- Shannon Airport
- Birdwatch Ireland
- Bat Conservation Ireland
- National Roads Authority

Key environmental issues that have been included in the SEA ER and adopted into the WES as appropriate include:

- Additional baseline information on fisheries and fish stocks including restoration of same at the Owenbolishka River catchment.
- Additional information on potential peat impacts
- Additional information on potential transboundary impacts

Additional mitigation measures including:

Section 8.3 Assessment of Environmental Impacts

- Additional detail required for EIA;
- listing of additional biodiversity legislation,
- additional requirement for yearly bird monitoring as appropriate,
- additional monitoring requirements,
- specific reference to the Lesser Horseshoe Bat
- notifiable actions in NHAs concerning peat removal or excavation
- further detail on buffer areas and consultation
- surface water management plans and peat depth surveys requirements

2.1.4 Public Submissions on the second draft of the WES, SEA ER and NIS.

During the meeting of Galway County Council on 21st July, a number of alterations were proposed by elected members on the draft Wind Energy Strategy (WES). The following amendments, not in accordance with the Manager's Report and Recommendations of 30th June 2011, were made by the elected members to the proposed WES at the Galway County Council meeting held on 21st July 2011.

The following Table A shows the proposed amendments and is accompanied by the SEA response as to whether this is recommended or not from the SEA perspective. Additionally, the NIS assessed the implications of these amendments from the Habitats Directive Assessment perspective.

Table A: Material amendments proposed by elected members at 21st July 2011 Galway County Council Meeting.

Amendment	SEA Response	SEA determination	WES
<p>Section 4.2 Strategic Guidance on Landscape Capacity for Wind Energy Developments</p> <p>Insert after first paragraph: <i>This guidance is intended as broad advice on landscape character areas and will need to be balanced against site-specific assessments of the</i></p>	<p>The aim of the landscape guidance contained in the draft WES is to provide strategic level advice and therefore the site specific landscape impacts are more appropriately addressed at project level.</p> <p>This amendment is assessed as a neutral to positive impact in relation to landscape and therefore no mitigation measures are suggested for this amendment.</p>	Accepted	Included in Adopted WES

<p>after the final paragraph <i>"The approach taken to the compilation of the Wind Energy Strategy is based on a consistent and robust methodology which was not varied to take account of individual planning permissions which have been fully assessed under HDA. However, any project which was subject to a planning application which has been granted permission following assessment of all factors including landscape capacity, it is considered that this project is consistent with and in full compliance with this Wind Energy Strategy".</i></p>	<p>individual projects which are better addressed through development control and Environmental Impact Assessment as appropriate. At SEA level it is problematic state individual projects are 'in full compliance' with the draft WES as this is more appropriately addressed at project not SEA level assessment.</p>		WE2
<p>Amend the designation on the areas of land on the attached map from "Acceptable in Principle" to "Not Normally Permissible".</p>	<p>This rezoning is likely to have a neutral to positive impact on many SEA parameters as it directs wind energy development from this particular area. It does dilute the WES methodology but has been proposed in response to concerns raised by the local community.</p>	Accepted	Included in Adopted WES
<p>Amend the designation on the lands which were the subject of Submission No.18 from "Not Normally Permissible" to "Open for Consideration"</p>	<p>The overall target for 2020 in the WES for Open for Consideration areas is 30 MW, a target that is dispersed over a total county land area of 18%. The environmental impact of this rezoning is assessed as being largely neutral for many SEA parameters. However, this is better addressed at project level and therefore is not in the spirit of the SEA directive.</p>	Accepted	Included in Adopted WES
<p>Amend the designation on the lands which were the subject of Submission No 17 from "Not Normally Permissible" to "Open for Consideration".</p>	<p>The proposed rezoning of this area is not recommended as it is based on individual projects that are more appropriately addressed at project and Environmental Impact Assessment level. In addition, the proximity of this area to Clifden town, and other important tourism and recreational areas including Connemara National Park and Diamond Hill results in potential conflicts with landscape, human health and population and cultural heritage.</p>	Not recommended	Included in Adopted WES
<p>Amend the designation on the land which were</p>	<p>This amendment changes the designation of an area of land amounting 79.2ha from</p>	Not recommended.	Not included in Adopted WES

- Fisheries
- Support for amendments to NIS
- Concerns that the WES is overly conservative and prescriptive
- Site specific considerations principally on landscape, tourism and ecological grounds.

Galway County Council members voted to adopt the variation on the 21st September. In terms of recommendations from the Managers Report, the elected members accepted all recommendations with the exception of Submission no.2 concerning lands north of Clifden. The SEA Addendum Report 1 did not recommend this be rezoned from Not Normally Permissible to Open for Consideration. The elected members rejected this recommendation and this area is now zoned as open for consideration.

On adoption of the Draft Plan, the Addenda were used to update the original Environmental Report into a final Environmental Report which will be made publicly available alongside the adopted WES.

	renewable energy development plan (OREDPA) that has identified potential areas for offshore renewable around Ireland. Should recommendations arise from the finalised OREDPA, these will be considered by GCC. Thus, while this option was not considered a realistic alternative to onshore wind energy development, it has been considered as part of the overall WES for County Galway.
Option 5 – Onshore and Offshore Wind Energy Development	This scenario would direct wind energy developments to both on shore and offshore areas in and around County Galway as a means of achieving renewable energy targets. It is unlikely that the County could achieve significant renewable energy production from off shore wind energy within the timeframe envisaged for this WES, however, there may be potential for a certain amount of off shore wind energy development and the WES has accordingly retained the flexibility to allow for offshore wind farm developments.
Option 6 – Alternative Targets and Alternative Timeframes	This scenario would assess different renewable energy targets and timeframes as a means of achieving a 2020 renewable energy target of 40% electricity production from renewable energy resources. The target of 500 MW has been developed in consideration of the technical, physical and environmental constraints facing wind energy development and in consultation with a number of agencies and represents a realistic target that can potentially be achieved over the lifetime of the WES.
Option 7 – Strategic Approach to Wind Energy Development	<p>This is the approach taken by GCC in undertaking this work and SEA. It recognises where the principal wind resources are and matches them to existing infrastructure – two critical considerations for wind energy development. In addition, the identification of Strategic Areas and Acceptable in Principle Areas permits a comprehensive assessment of environmental resources within and close to these areas, facilitating a more robust SEA and HDA process that informs the WES development. It allows for a medium term view of wind energy developments in the County and encourages clustering or sharing of infrastructure associated with wind energy development such as access roads.</p> <p>In summary, the significant environmental and energy benefits would be as follows:</p> <ul style="list-style-type: none"> • Facilitates a strategic and plan-led approach to wind energy development in the County. In turn, this permits the more accurate analysis of existing environmental resources, potential impacts and identification of mitigation measures where necessary. • Facilitates the avoidance of particularly sensitive resources where necessary. Allows for a cumulative assessment of wind energy developments within the County. Allows the County and potential investors a means to progress wind energy developments within robust strategic areas in the County, assisting the County in increasing renewable energy.
Following the selection of Option 7 Strategic approach, a number of spatial sub options were assessed. Option 7e Larger Wind Farm Clusters in Suitable Areas and Smaller Wind Farm Developments in Potentially Suitable Areas was identified as the most appropriate. This	

4 Frequency of Monitoring and Reporting

4.1.1 Introduction

It is proposed that the SEA monitoring reporting should go parallel with the reviewing of the County Development Plan 2009-2015. However, in some cases as data becomes available, the Planning Authority may prepare an additional SEA Monitoring Report, if it is deemed necessary, particularly if the new data and its spatial analysis identifies negative impact(s) on the environment. In turn, this list below is subject to review at each reporting stage to reflect new data.

Should the monitoring regime identify significant impacts (such as impacts on designated sites) early on in the WES implementation, this should trigger a review of the WES and monitoring regime. It is recommended that data arising from planning applications, particularly in terms of environmental constraints mapping and Environmental Impact Statements be integrated into the GIS and monitoring system. This will assist in assessing cumulative impacts also, in particular ecology, water quality and slope stability.

Finally, it is recommended that the monitoring report be made available to the public upon its completion. It is recommended that this data be shared with neighbouring local authorities to assist in monitoring transboundary effects should they arise.

Table C Monitoring Programme

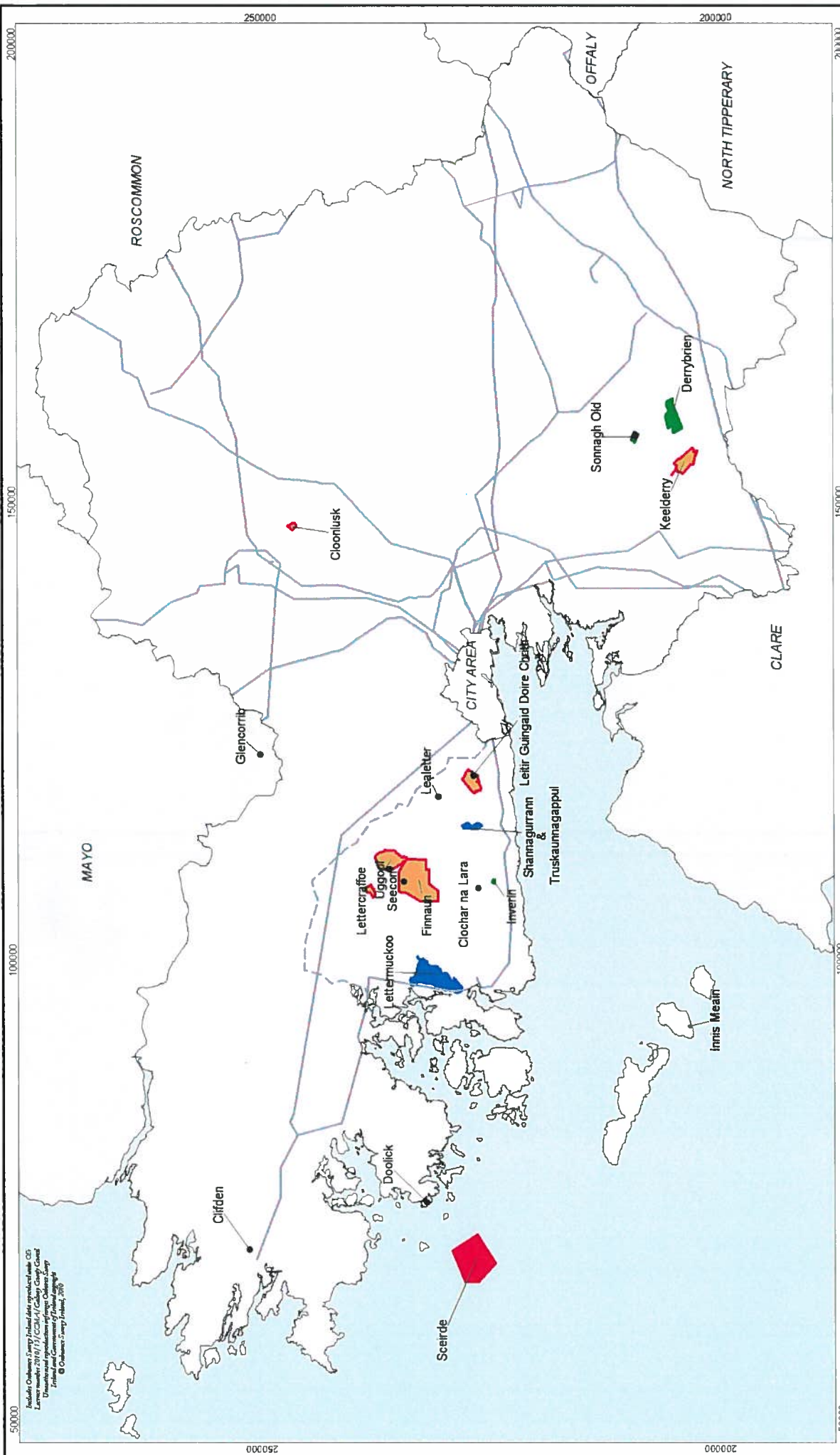
Environmental Protection Objectives	Indicators	Targets	Data Source
Biodiversity, Flora & Fauna			
B1: Protect diversity and integrity of designated habitats and species and maintain wildlife corridors	% Habitat Loss	No net loss of important habitats or wildlife corridors	NPWS/ GCC
B 2: Protect aquatic environment	No. of significant impacts to aquatic environment. No depreciation of water quality attributed to wind energy developments	No Significant impacts	EPANPWS/GCC
B3 Avoid significant adverse impacts (direct, cumulative and indirect) to protected habitats, species or their sustaining resources in designated sites by	No. of significant adverse impacts to relevant habitats and species in designated heritage sites	No significant adverse impacts to habitats, species or sustaining resources	GCC/NPWS

waters (including coastal and estuarine) from wind energy developments	energy construction	quality due to wind energy development	
Population and Human Health			
PH1:Ensure local and neighbouring communities benefit economically from wind energy developments in the defined areas PH 2:To protect human health from hazards or nuisances arising from wind energy developments specifically noise, shadow flicker, visual impacts and temporary construction impacts	No. of construction jobs sources from local area. Establishment of community fund Occurrence of spatially concentrated complaints in regard to environmental nuisances (eg; noise complaints, shadow flicker)	% total jobs from local area. Amount paid into community fund No spatial concentration of health problems or nuisance arising from environmental factors and wind energy developments	GCC/HSE
Landscape			
L1: To protect the county's unique and special landscapes, from negative wind energy development impacts L2: Minimise visual impacts of wind farm developments through appropriate design and siting	Degradation of unique or special landscapes due to negative visual impacts associated with wind energy Degradation of landscape features and character from wind energy	No significant degradation of unique or special landscapes due to negative visual impacts associated with wind energy No degradation of valued landscape features and no significant adverse impact on landscape quality of unique or sensitive landscapes	GCC
Cultural Heritage			
CH1:Protect and conserve archaeology resources in relation to wind energy developments CH 2:To preserve and protect the special interest and character of the county's architectural heritage in relation to wind energy developments	No of applications granted resulting in full or partial loss of entries to the RMP No of applications addressing impact of wind energy development on setting of ACAs or protected structures where relevant.	No developments to result in full or partial loss of such sites No wind energy developments to significantly impacts on settings of ACAs and protected structures	GCC/DoEHLG

<p>national grid in a sustainable manner MA 8: Ensure that renewable energy developments do not impact negatively on existing wastewater treatment plans</p> <p>MA 9: Prevent development on lands that pose a significant flood risk</p>	<p>designated sites, or water resources</p> <p>No decline in water quality arising from impacts to wastewater treatment plans</p> <p>No development for wind energy permitted on known flood risk lands</p>	<p>No adverse impacts to wastewater treatment plants in defined areas.</p> <p>No flooding incident arising from development on flood risk lands</p>	
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4.1.2 Conclusion

The WES sets out an overall strategy, policies and objectives for Galway County Council to promote wind energy development in appropriate areas whilst providing the most appropriate development management guidelines. The SEA and Habitats Directive Assessment (HDA) have informed the WES through an ongoing iterative process that incorporated environmental considerations and sensitivities throughout the strategy development. The SEA and HDA has been undertaken in line with the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 to 2011. Subject to the full and proper implementation of the mitigation measures outlined in the SEA ER and Natura Impact Statement including appropriate site level investigations, it is considered that significant adverse impacts on the environment will be avoided.



MAP WE-1A: WIND FARM DEVELOPMENTS

Galway County Council Wind Energy Strategy 2011

SCALE: 1:400,000 [A3]

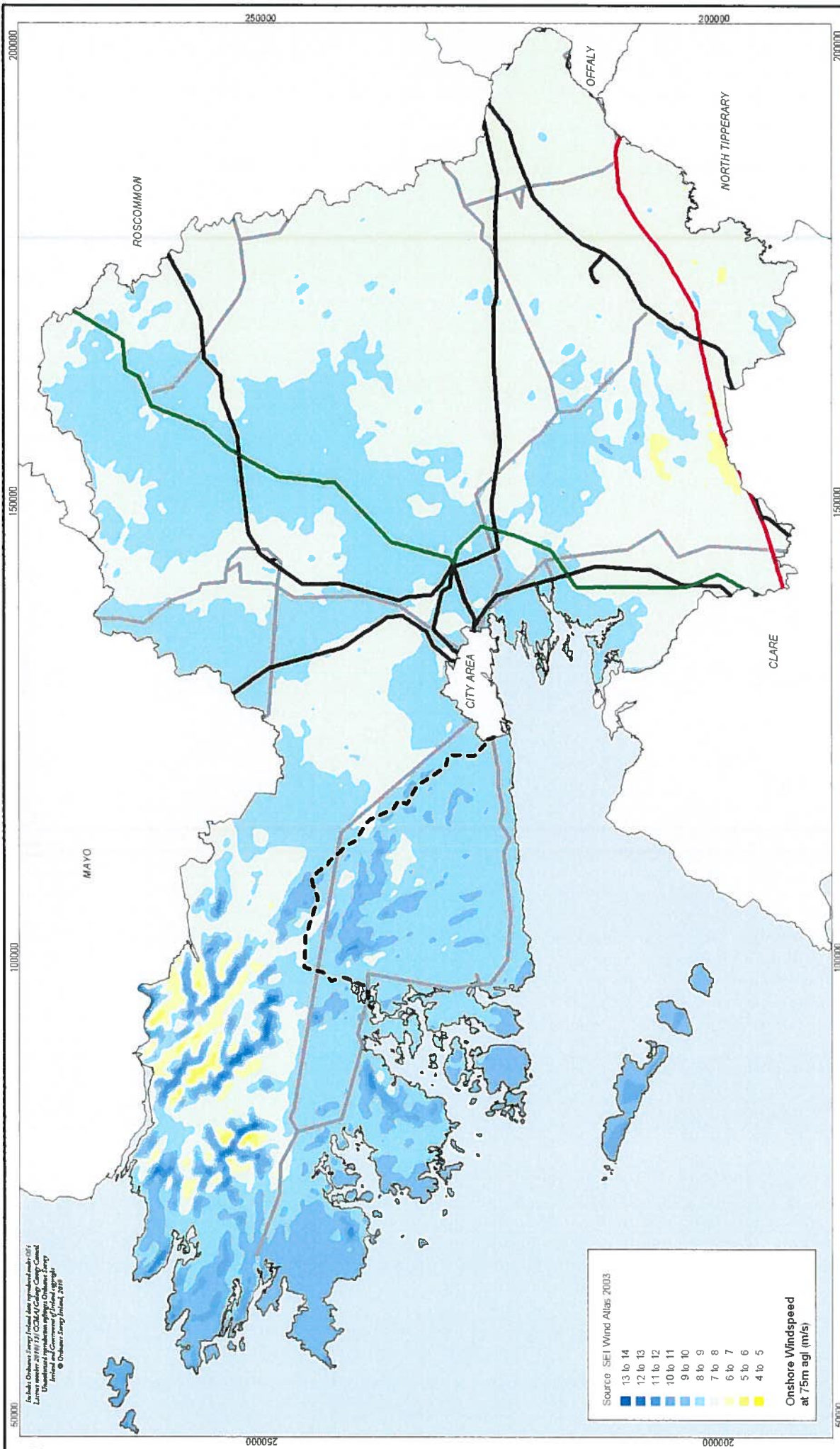
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Kilometres

SOURCES:

- ORDNANCE SURVEY IRELAND
- GALWAY COUNTY COUNCIL
- ELECTRICITY SUPPLY BOARD
- SIN ÉIREANN: ÉIREANN IRE AND

	Operational Wind Farm		Pending Wind Farm Foreshore Licence
	Permitted Wind Farm		Wind Farm Gate 3 Node Assignment
	Pending Wind Farm	—	Existing Electricity Network
		- - -	Approved Electricity Network

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In Accordance with the Energy (Wind) Act 2000, the Galway County Council has been designated as the local authority for the purpose of the Wind Resource Assessment. The map is a product of the Galway County Council Wind Resource Assessment. It is a product of the Galway County Council Wind Resource Assessment. It is a product of the Galway County Council Wind Resource Assessment.

Source: SEI Wind Atlas 2003

13 to 14
12 to 13
11 to 12
10 to 11
9 to 10
8 to 9
7 to 8
6 to 7
5 to 6
4 to 5

Onshore Windspeed at 75m agl (m/s)



Transmission Lines

- 400kV
- 220kV
- 110kV
- 38kV
- Approved 110kV

MAP WE-1B : WIND RESOURCES AND TRANSMISSION NETWORK

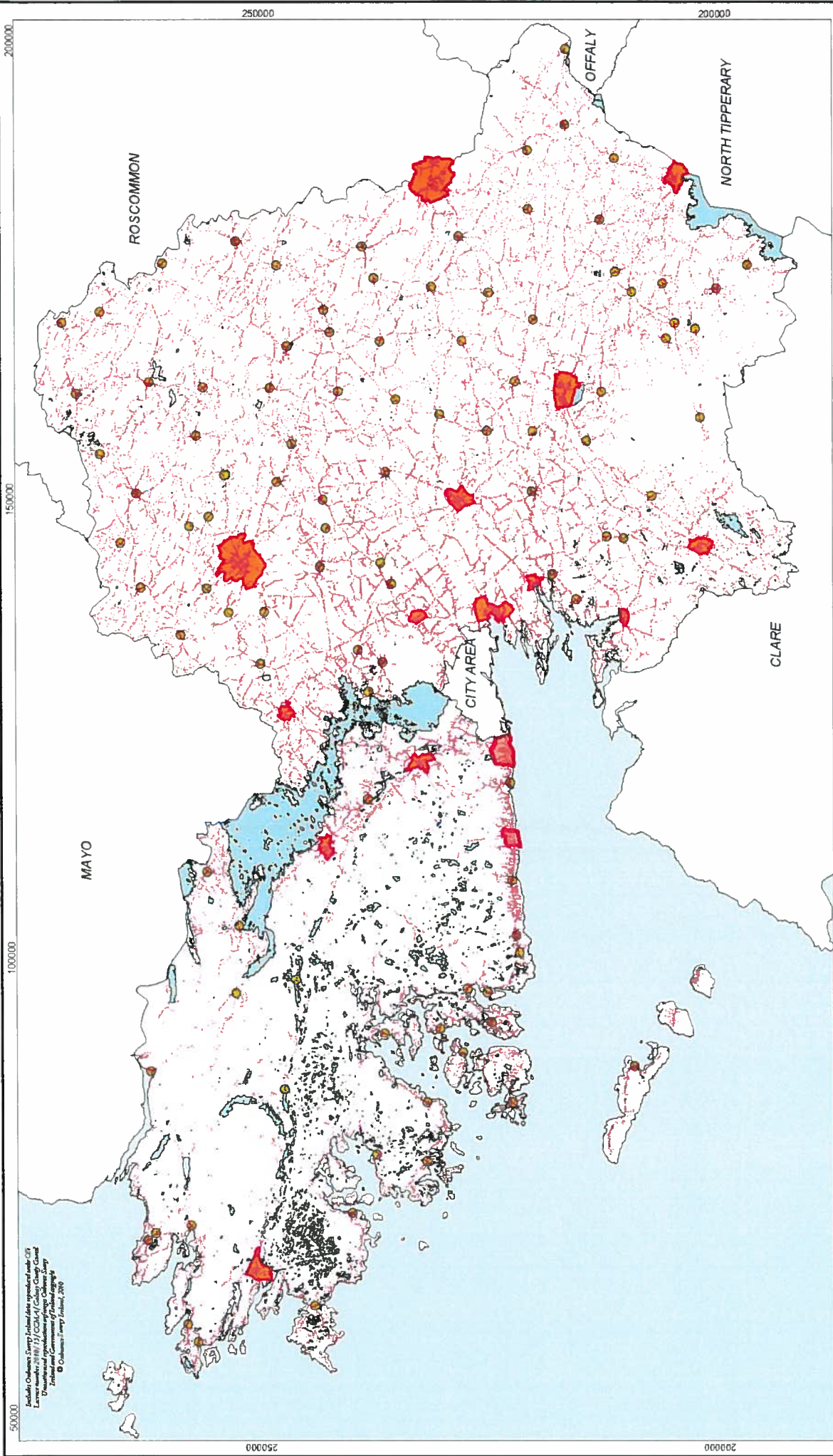
Galway County Council Wind Energy Strategy 2011

SCALE: 1:400,000 (A3)

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SOURCES
ORDNANCE SURVEY/IRE AND
GALWAY COUNTY COUNCIL
ELECTRICITY SUPPLY BOARD
SUSTAINABLE ENERGY IRELAND
SEI IRELAND WIND ATLAS 2003



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MAP WE-2A : URBAN AND RURAL SETTLEMENTS

Galway County Council Wind Energy Strategy 2011

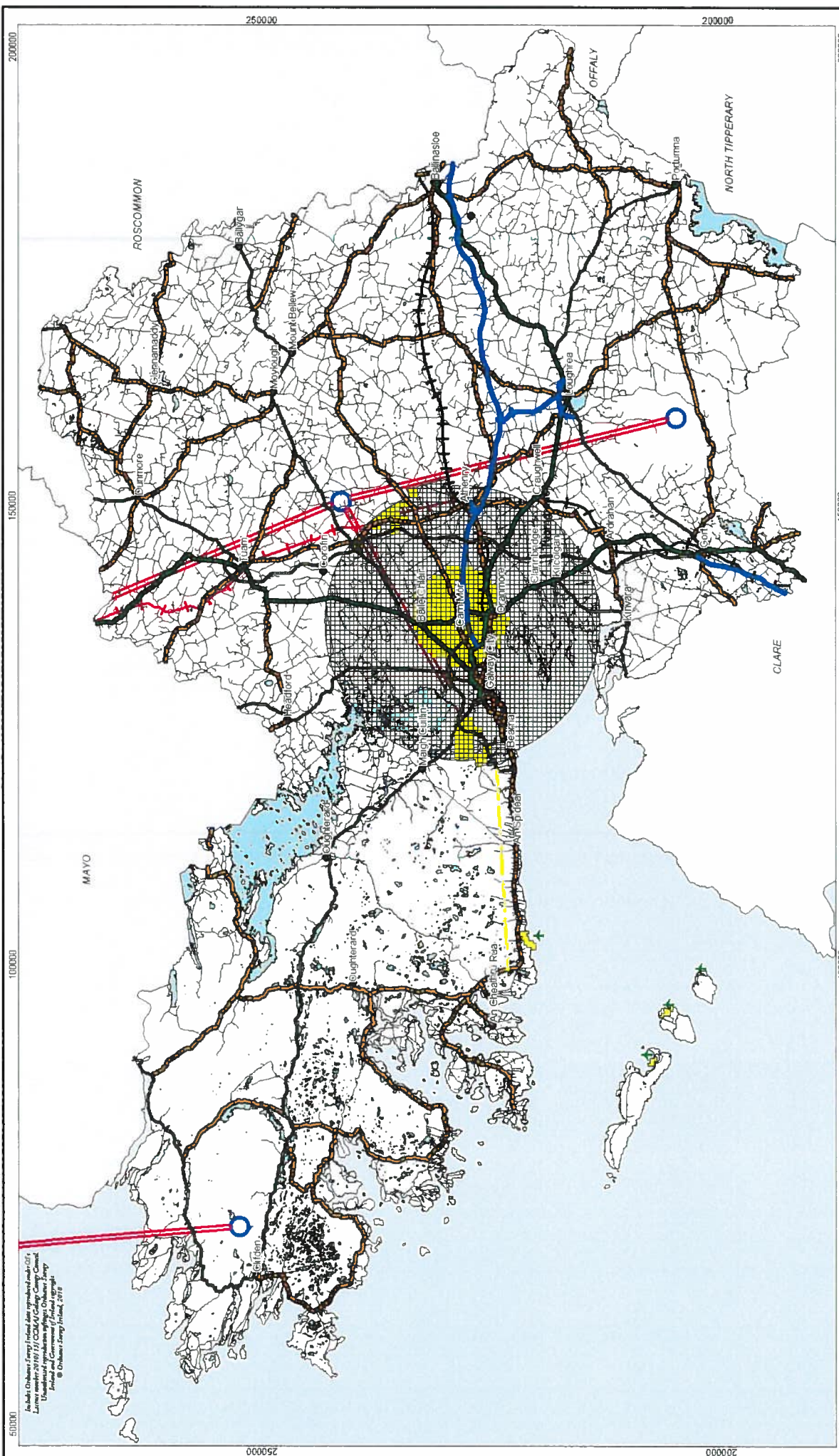


SCALE: 1:400,000 (A3)
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Kilometres

SOURCE:
ORDNANCE SURVEY (OS) IRLAND
GALWAY COUNTY COUNCIL
(AIR POS)

- Air Pos, Residential Addresses
- Plan Boundaries
- Service Centres / Small Settlements





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MAP WE-2B : TRANSPORT AND UTILITY INFRASTRUCTURE

Galway County Council Wind Energy Strategy 2011



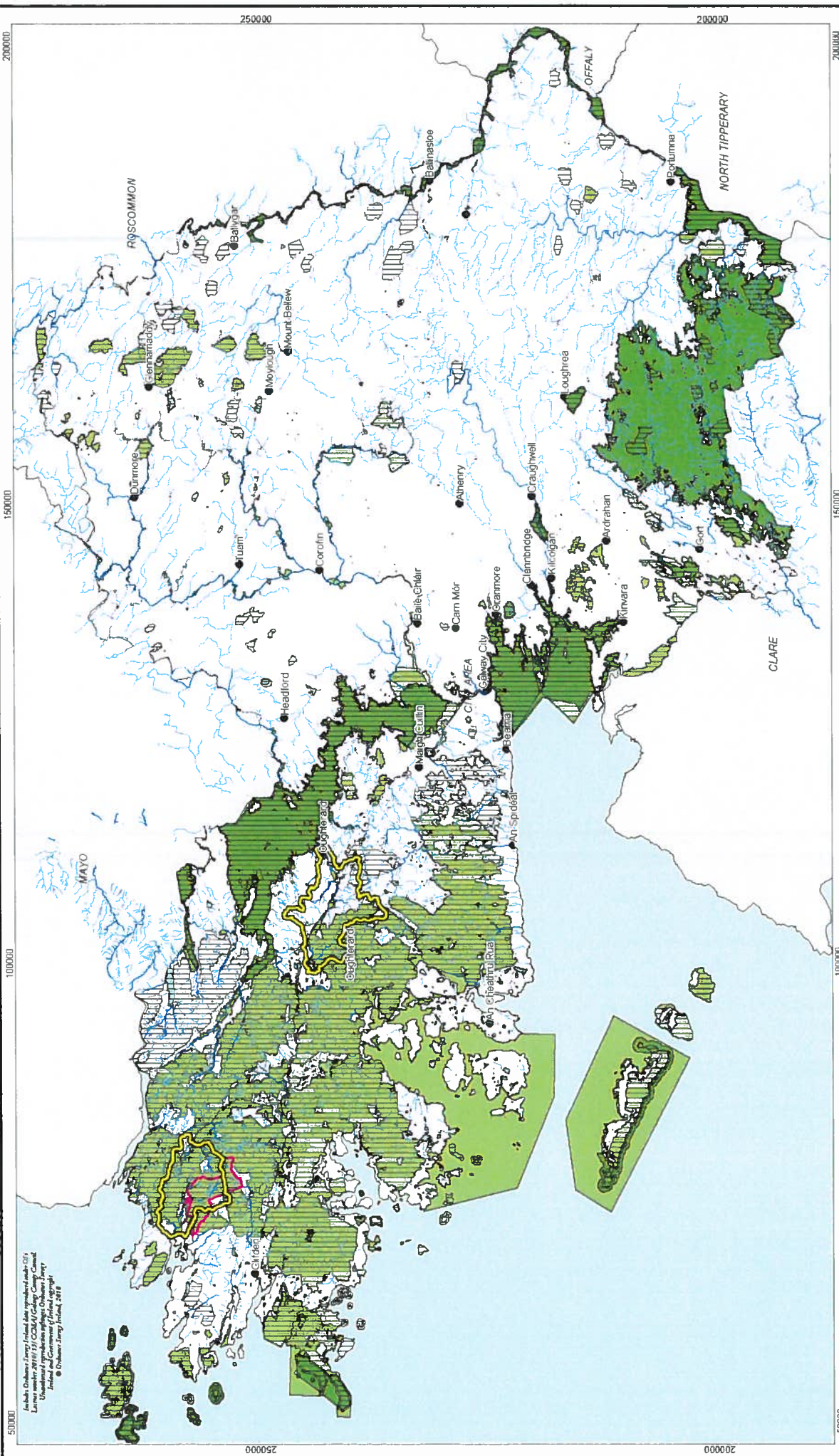
- National Primary Roads
- National Secondary Roads
- Regional Roads
- Local Roads
- Recently Built Motorway & Link Roads
- Proposed Roads
- Indicative Road Corridor
- Existing Rail
- Proposed Rail
- Airports / Airstrips
- Airport Exclusion Zone
- Airport Safeguarding Zone
- CAMP Masts & LOS

SCALE: 1:400,000 [A3]



SOURCES:
 ORDNANCE SURVEY (OS) AND
 NATIONAL ROADS AUTHORITY
 (NSA) DATA
 GALWAY COUNTY COUNCIL





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MAP WE-3A : NATURAL HERITAGE DESIGNATIONS

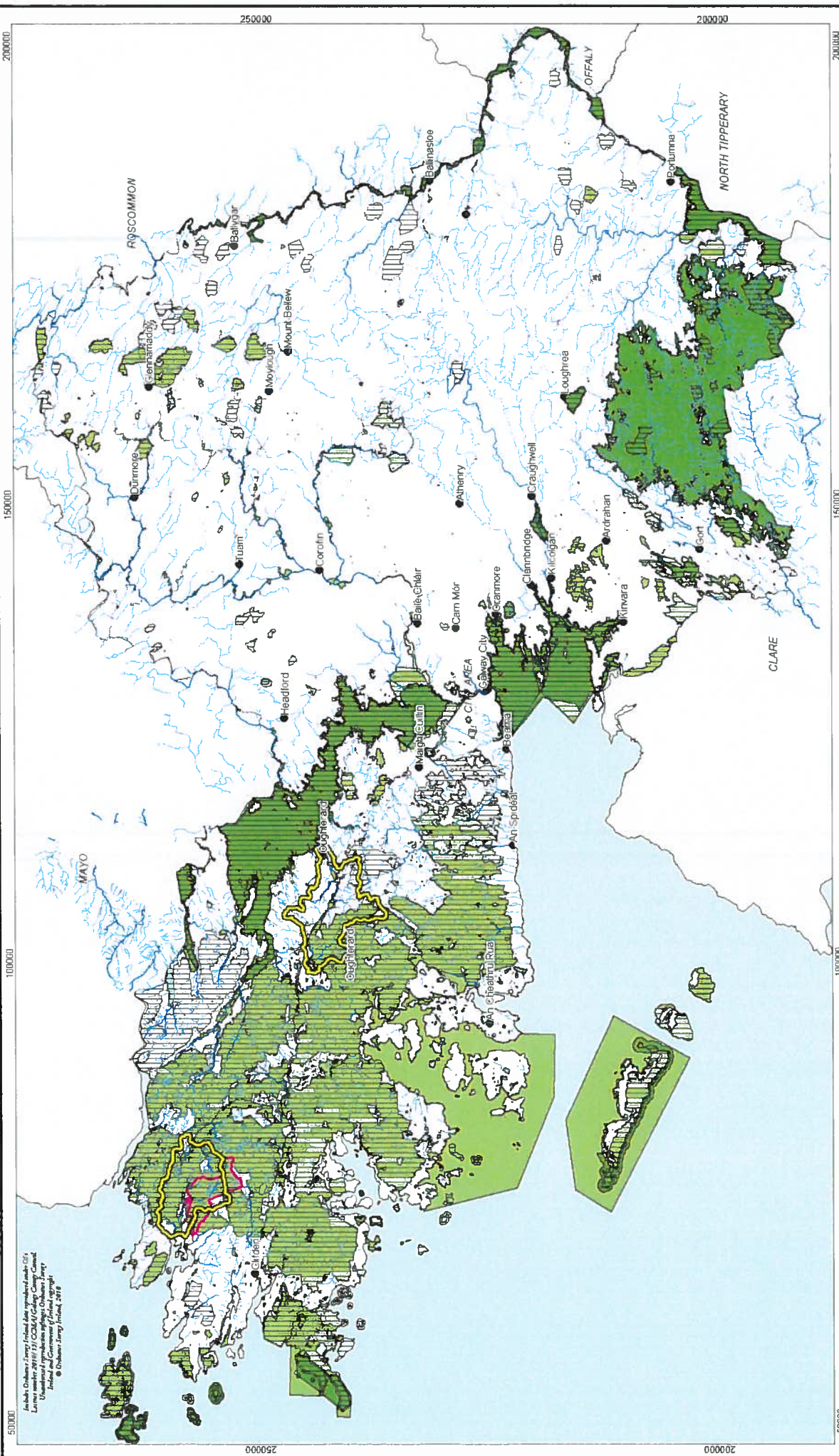
Galway County Council Wind Energy Strategy 2011

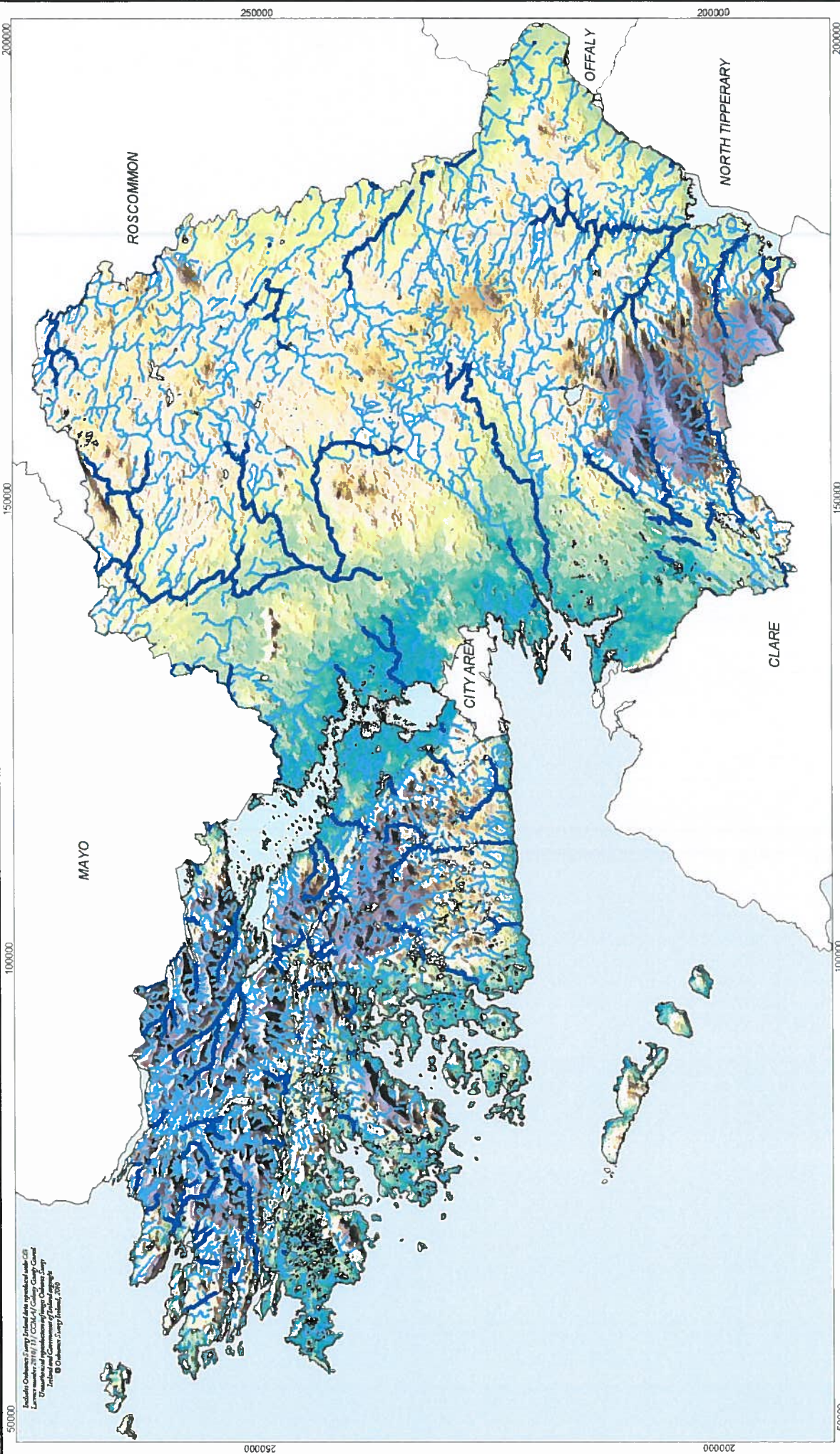


-  SPA
-  SAC
-  NHA
-  Connemara National Park
-  Freshwater Pearl Mussel Sub-Basin
-  Rivers
-  Streams

SCALE: 1:400,000 [A3]

SOURCES
 NATIONAL PARKS AND WILDLIFE SERVICE
 ORDNANCE SURVEY (IRELAND)
 GALWAY COUNTY COUNCIL









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MAP WE-3B : TOPOGRAPHY AND WATERBODIES

Galway County Council Wind Energy Strategy 2011

-  Galway Bay & Ocean
-  Lakes
-  Rivers
-  Streams

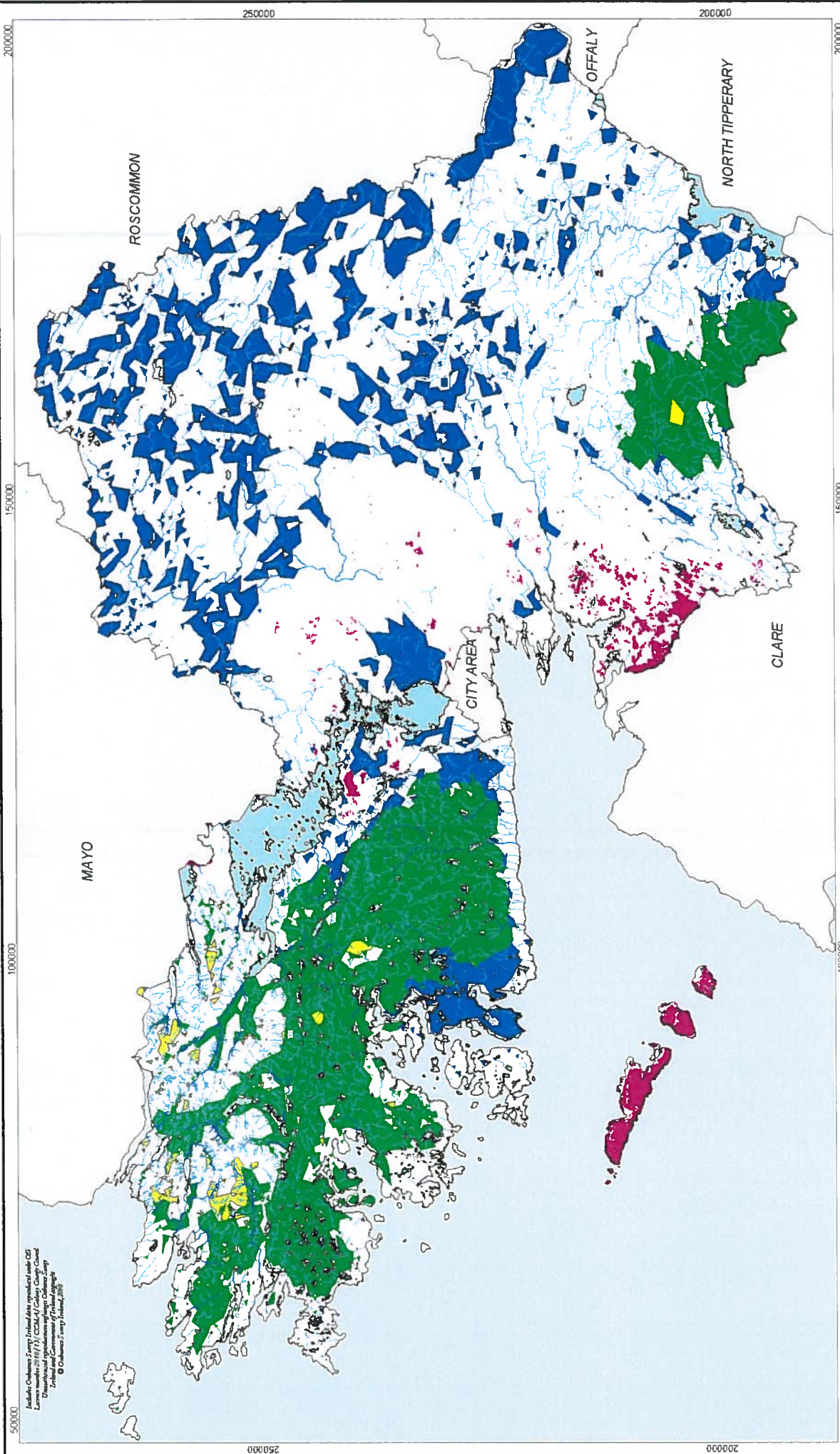


SCALE: 1:400,000 [A3]



SOURCES:
ORDNANCE SURVEY IRELAND
GALWAY COUNTY COUNCIL





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 Environmental Management Agency
 Environmental Protection Agency
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MAP WE-3C : PEATLANDS AND LIMESTONE PAVEMENT

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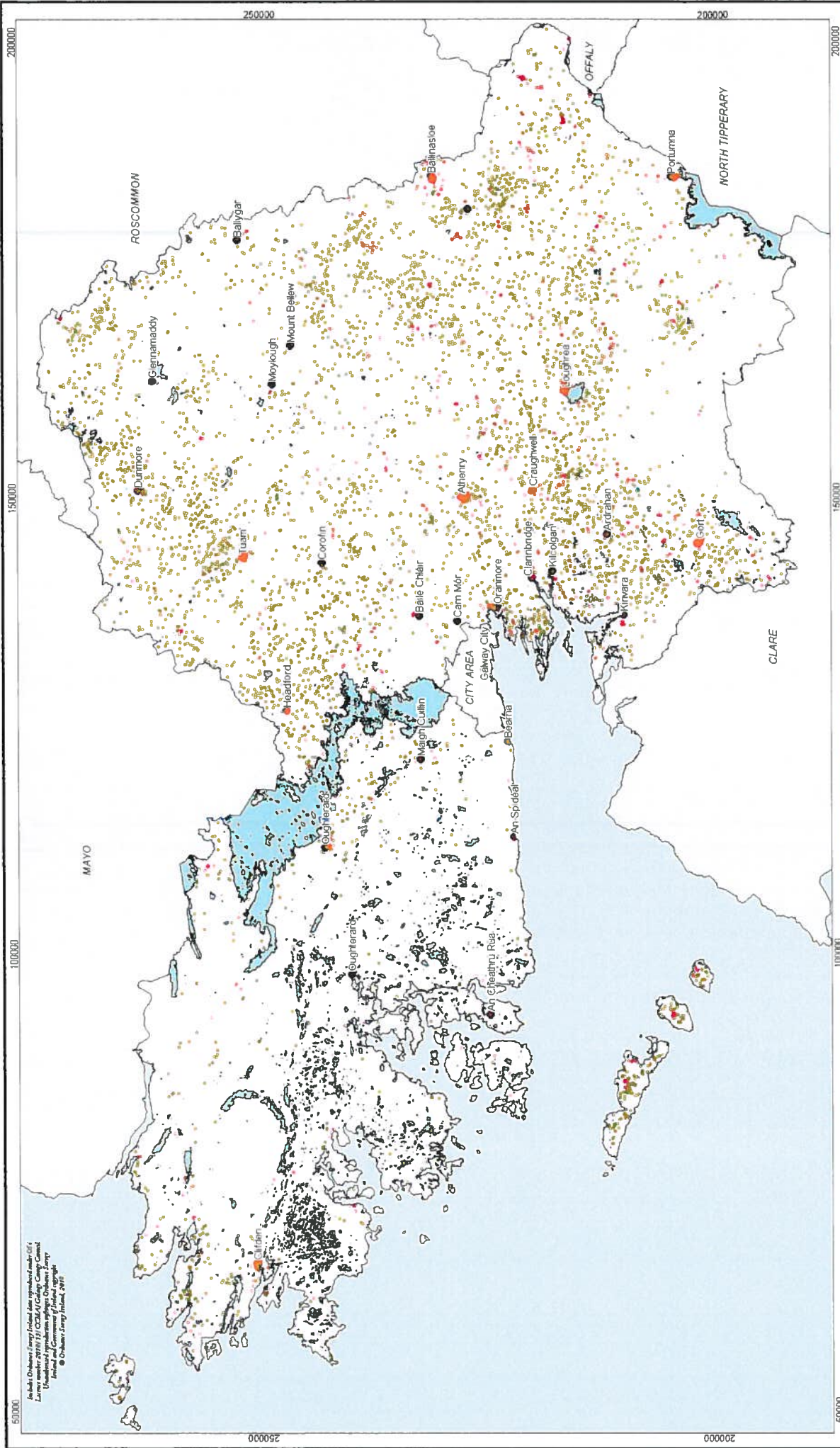
- Low Level Atlantic Blanket Bog
- Raised Bog
- High Level Montane Bog
- Limestone Pavement
- Lakes
- Rivers
- Streams

SCALE: 1:400,000 [A3]
 0 7.5 15
 Kilometres






SOURCES:
 GORMAN SURVEY (RELAND)
 UNIVERSITY COLLEGE DUBLIN
 ENVIRONMENTAL PROTECTION AGENCY





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MAP WE-3D : BUILT HERITAGE

-  Recorded Monuments and Places (RMP)
-  Protected Structures (RPS)
-  Architectural Conservation Areas (ACAs)

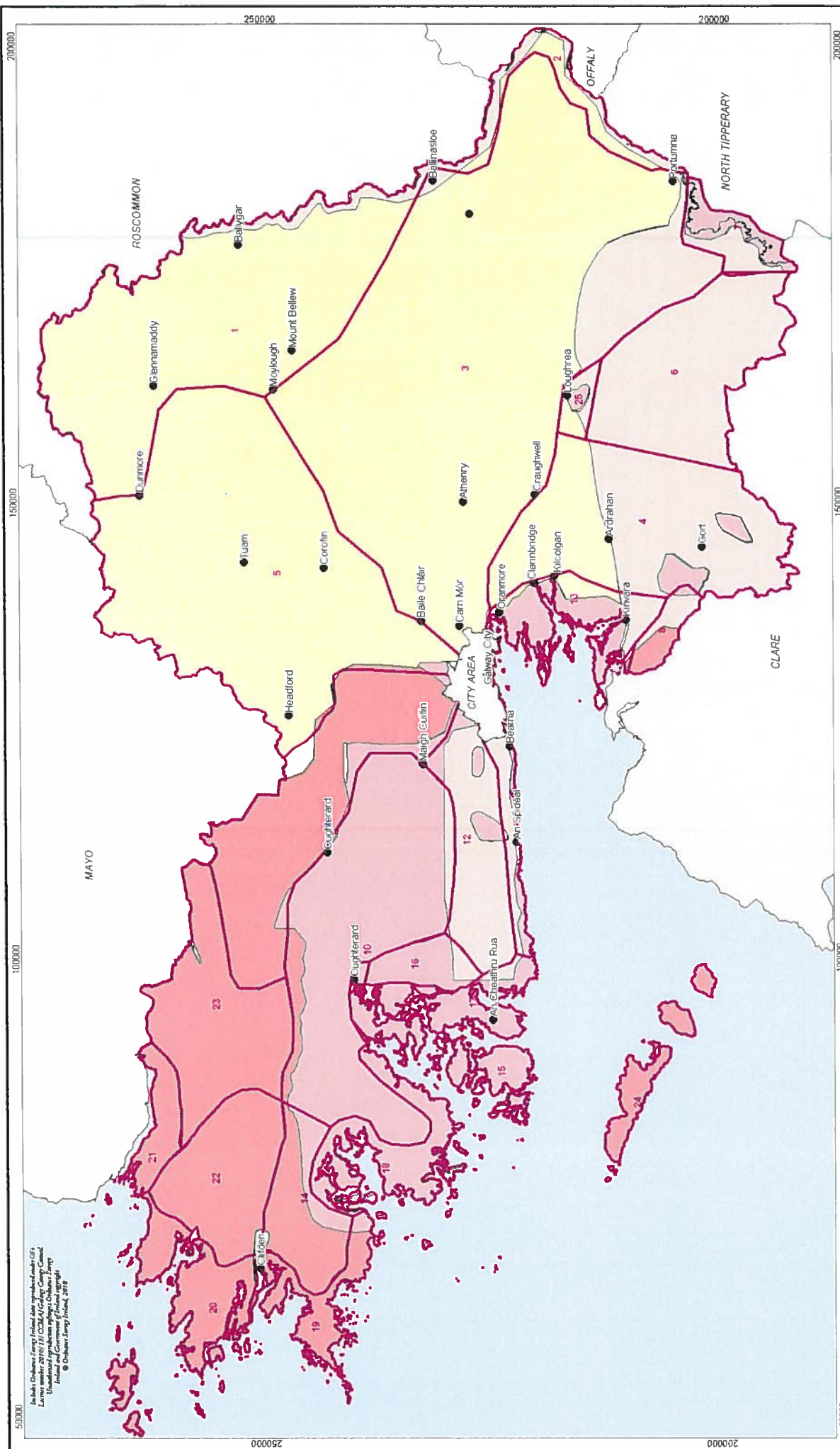


Galway County Council Wind Energy Strategy 2011

SCALE: 1:400,000 (A3)



SOURCES
 ORDNANCE SURVEY (IRE AND
 GALWAY COUNTY COUNCIL
 DEPARTMENT OF THE ENVIRONMENT,
 HERITAGE AND LOCAL GOVERNMENT



Galway County Council Wind Energy Strategy 2011

SCALE: 1:400,000 [A3]

0 7.5 15
Kilometres

SOURCES:
 GRIANNE BURKE/RELAND
 GALWAY COUNTY COUNCIL
 LANDSCAPE AND LANDSCAPE CHARACTER
 ASSESSMENT FOR GALWAY COUNTY 2002
 GALWAY COUNTY DEVELOPMENT PLAN 2009-2015

- 10 - East Connemara Mountains (Moycullen, Recess to Glinsk)**
 11 - Lough Corrib and environs
 12 - South foothills of east Connemara Mountains (west of Salthill to Rossaveil)
 13 - East Galway Bay (Drammore to Kiverra Bay and inland to N18 road)
 14 - East Connemara
 15 - West Connemara (including Lichanagh Loughs and south Lough Mass)
 16 - West foothills of east Connemara Mountains (Glencolumbkille Lough environs)
- 17 - Carrane (Casha Bay to Glencoh)**
 18 - Bertraghboy Bay and eastern banks
 19 - West Coast (Green Bay to Clifden)
 20 - West Coast (Clifden to mouth of Killybeg Harbour)
 21 - Killybeg Harbour and southern banks
 22 - Connemara National Park (including Lough Lee, Lough Inch and Lough Corrib Loughs and south Lough Mass)
 23 - Aran Islands
 24 - Aran Islands
 25 - Lough Rea

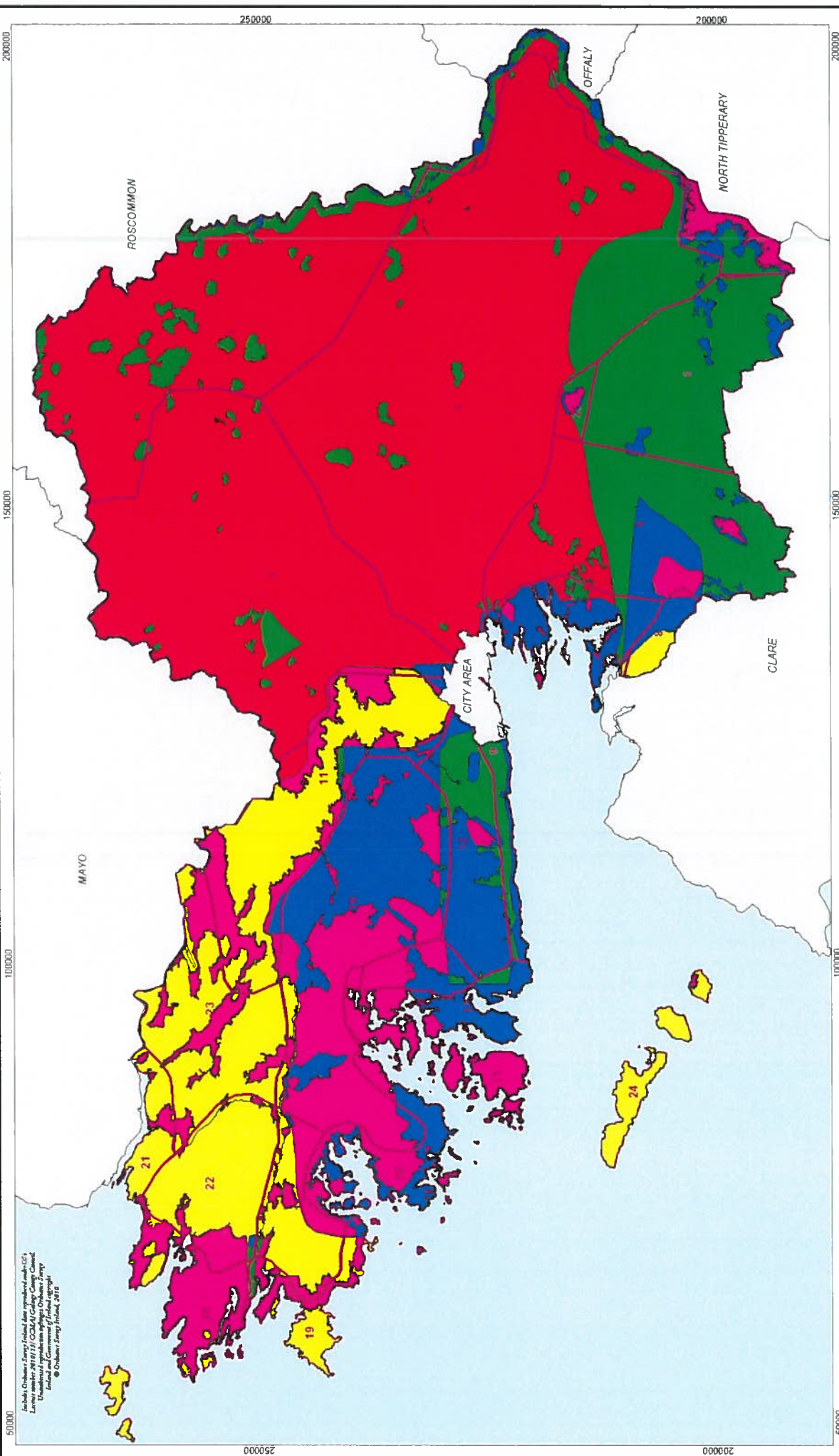
- 1 - North east Galway (Ballinasloe to Ballymore)**
 2 - Shannon and Suck River Valley between Portumna and Ballinasloe
 3 - East central Galway (Atherry, Ballinasloe to Portumna)
 4 - Southeast Galway (Clambridge to Cort)
 5 - Northeast Galway (Tuam environs)
 6 - Sive Aughty Mountains
 7 - Northwest Loch Derg
 8 - Lower Eurlen (Co. Galway portion)
 9 - Inveran to Galway City coastline

Landscape Value Rating:

- Outstanding
- High
- Medium
- Low



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Inclusió Chaitheirí Sainníú Iníreall Áite tuasáir le h-ádhúirí
 Lárreir 2011/12/13 CCMA/Colláige Coláiste Cléirge
 Tuasáir le h-ádhúirí Sainníú Iníreall Áite tuasáir le h-ádhúirí
 Iníreall Áite tuasáir le h-ádhúirí Sainníú Iníreall Áite tuasáir le h-ádhúirí
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MAP WE-4B : LANDSCAPE SENSITIVITY AND CHARACTER AREAS

Galway County Council Wind Energy Strategy 2011

Landscape Sensitivity

- Class 1 - low
- Class 2 - Moderate
- Class 3 - High
- Class 4 - Special
- Class 5 - Unique



Landscape Character Areas :

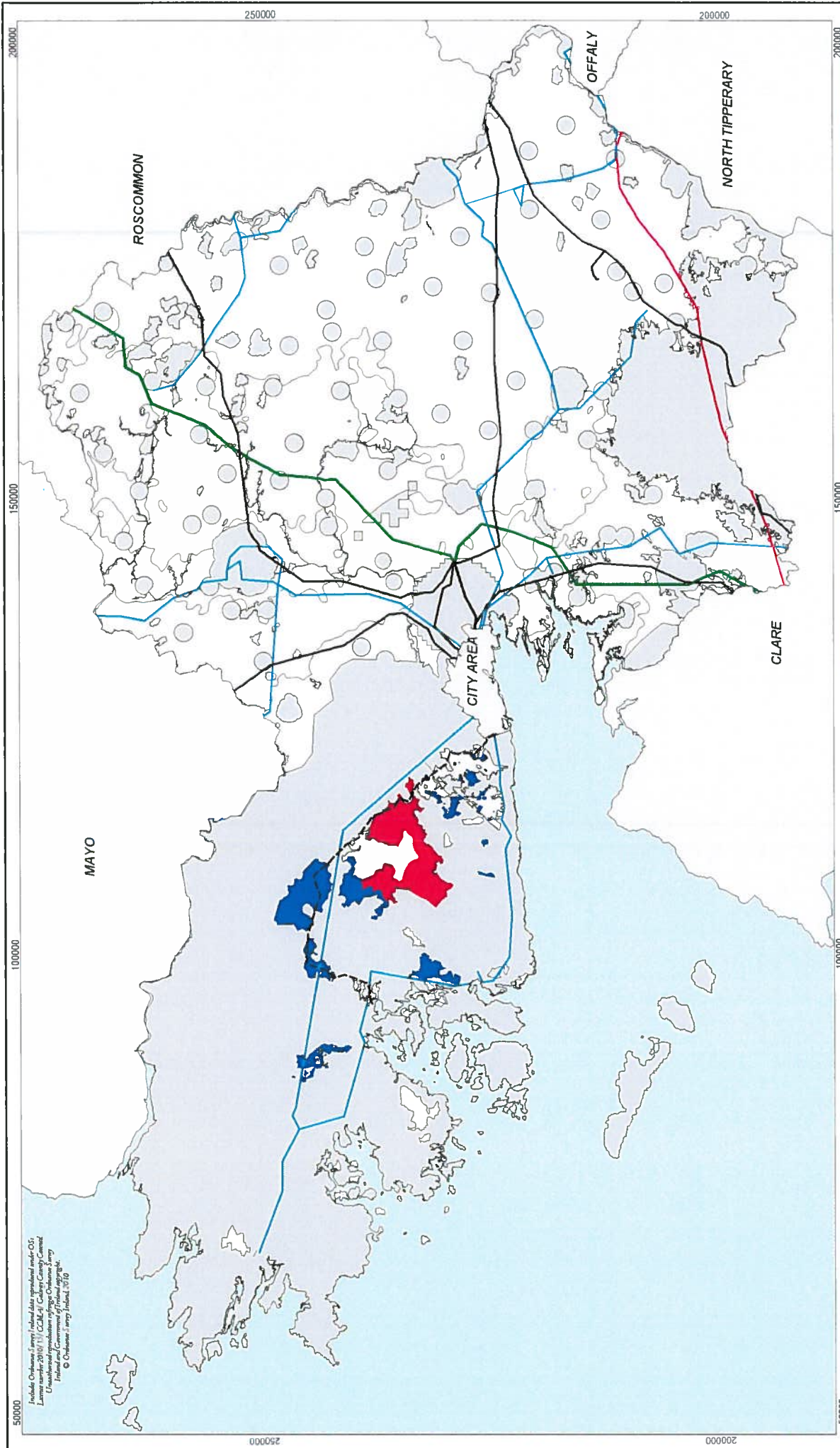
- 1 - North east Galway (Bainistíe to Ballymore)
- 2 - Shannon and Suck River Valley between Portumna and Ballynasloe
- 3 - East central Galway (Athenry, Ballynasloe to Portumna)
- 4 - Southeast Galway (Clairbridge to Cort)
- 5 - South West Galway (Maree to Murrisk)
- 6 - Northwest Loch Derg
- 7 - Lower Burren (Co. Galway portion)
- 8 - Inveran to Galway City coastline

- 10 - East Connemara Mountains (Moycullen, Recess to Glinsk)
- 11 - Lough Corrib and environs
- 12 - South foothills of east Connemara Mountains (West of Salsburgh to Rossaveil)
- 13 - East Connemara (Connemore to Kinvarra Bay and island to N16 road)
- 14 - West Connemara
- 15 - Lettermore and Gormaul Islands
- 16 - West foothills of east Connemara Mountains (Glencolumbkille to environs)

SCALE: 1:400,000 [A3]

SOURCES:
 DEPARTMENT OF THE ENVIRONMENT AND CLIMATE
 GALWAY COUNTY COUNCIL
 LANDSCAPE AND LANDSCAPE CHARACTER ASSESSMENT FOR GALWAY COUNTY COUNCIL
 GALWAY COUNTY DEVELOPMENT PLAN 2009-2015

0 7.5 15
 Kilometres



MAP WE-5A : STRATEGIC WIND FARM DEVELOPMENT AREAS AND TRANSMISSION NETWORK Galway County Council Wind Energy Strategy 2011

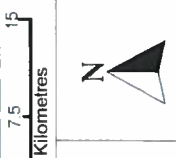
- SA - Strategic Areas
- AP - Acceptable in Principle Areas
- OC - Open to Consideration Areas
- NP - Not Normally Permissible Areas
- LW - Low Wind Speed



- Transmission Lines**
- 400kV
 - 220kV
 - 110kV
 - 38kV
 - Approved 110kV

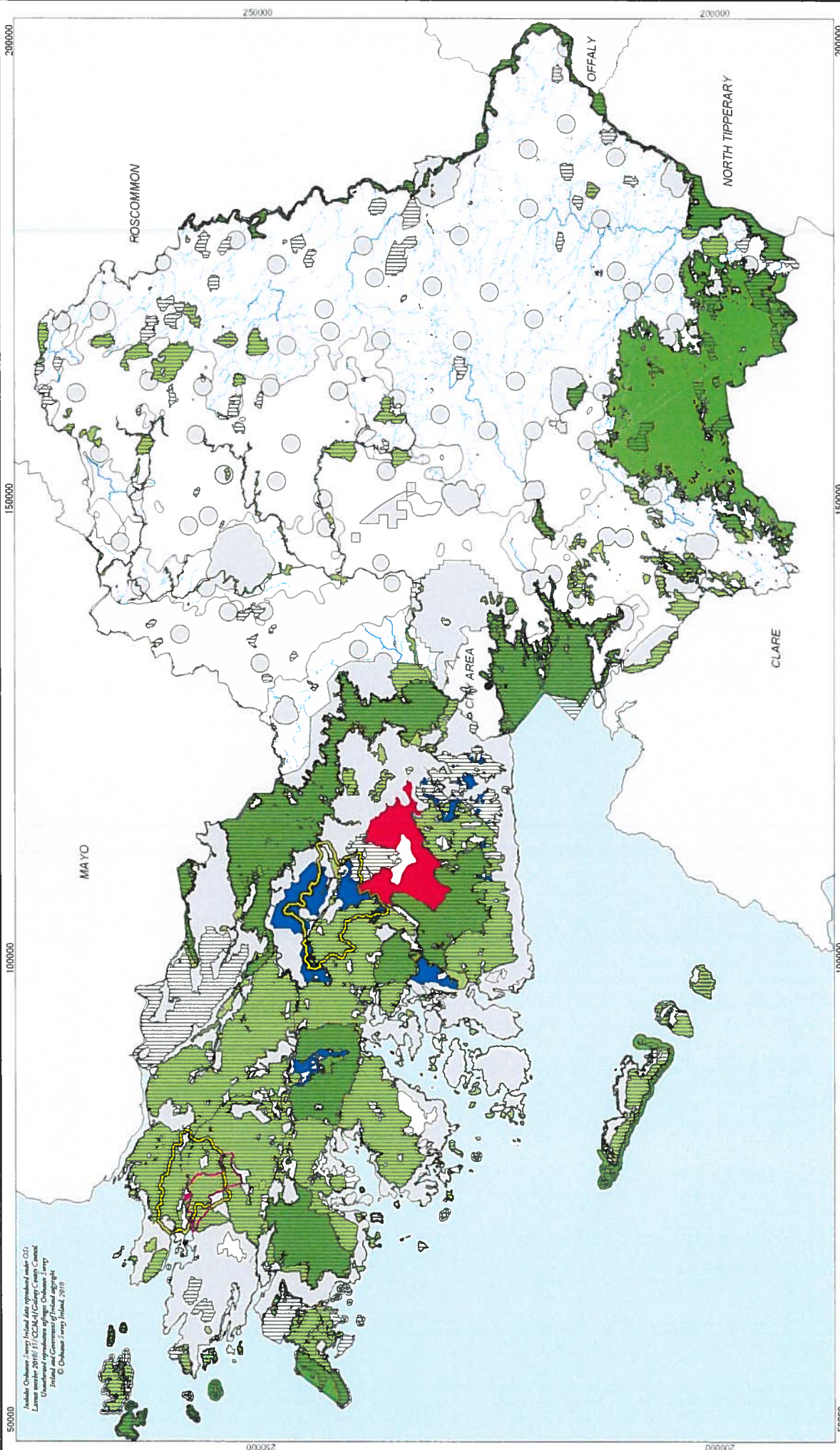
SCALE: 1:400,000 (A3)

SOURCES:
 ORDNANCE SURVEY (IRELAND)
 GALWAY COUNTY COUNCIL
 ELECTRICITY SUPPLY BOARD



Adopted 26th Sep 2011

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MAP WE-5B : STRATEGIC WIND FARM DEVELOPMENT AREAS AND NATURAL HERITAGE DESIGNATIONS

Galway County Council Wind Energy Strategy 2011

SA - Strategic Areas
AP - Acceptable in Principle Areas
OC - Open to Consideration Areas
NP - Not Normally Permissible Areas
LW - Low Wind Speed

SPA
SAC
NHA

Rivers
Streams

Connemara National Park
Freshwater Pearl Mussel Sub-Basin

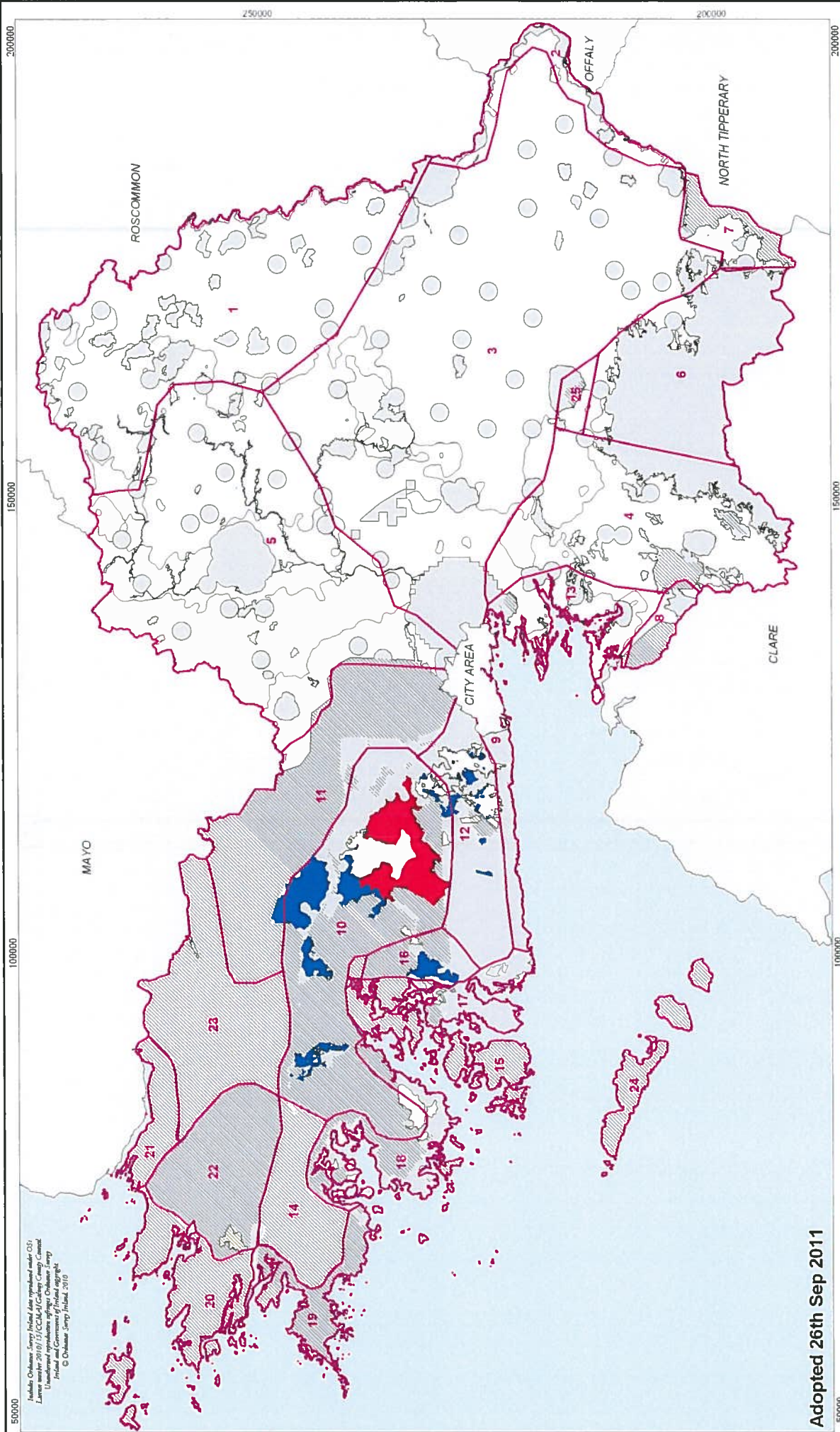
SCALE: 1:400,000 [A3]

0 7.5 15
Kilometres

SOURCES:
 NATIONAL PARKS & WILDLIFE SERVICE
 ORDNANCE SURVEY IRELAND
 GALWAY COUNTY COUNCIL

Adopted : 26th Sep 2011





Adopted 26th Sep 2011

MAP WE-5C : STRATEGIC WIND FARM DEVELOPMENT AREAS AND LANDSCAPE CHARACTER AREAS Galway County Council Wind Energy Strategy 2011

	SA - Strategic Areas
	AP - Acceptable in Principle Areas
	OC - Open to Consideration Areas
	NP - Not Formally Permissible Areas
	LW - Low Wind Speed
	Landscape Sensitivity Class 4 & 5

- Landscape Character Areas:**
- 1 - North east Galway (Ballinacree to Balfmoeny)
 - 2 - Shannon and Black River Valley between Fotauna and Ballinacree
 - 3 - East Central Galway (Athenry, Ballinacree to Fotauna)
 - 4 - Southeast Galway (Clarbidge to Gort)
 - 5 - Northwest Galway (Tuam environs)
 - 6 - Slieve Aughty Mountains
 - 7 - Northwest Lough Derg
 - 8 - Lower Burren (Co. Galway portion)
 - 9 - Inverton to Galway City coastline

- 10 - East Connemara Mountains (Moycullen, Recess to Glinsk)
- 11 - Lough Corrib and environs
- 12 - West Connemara Mountains (East Connemara to East Connemara)
- 13 - East Galway Bay (Oranmore to Kinvara Bay and island to N18 road)
- 14 - West Connemara
- 15 - Lettermore and Gouanna Islands
- 16 - West foothills of east Connemara Mountains (Glencolumbkille Lough environs)

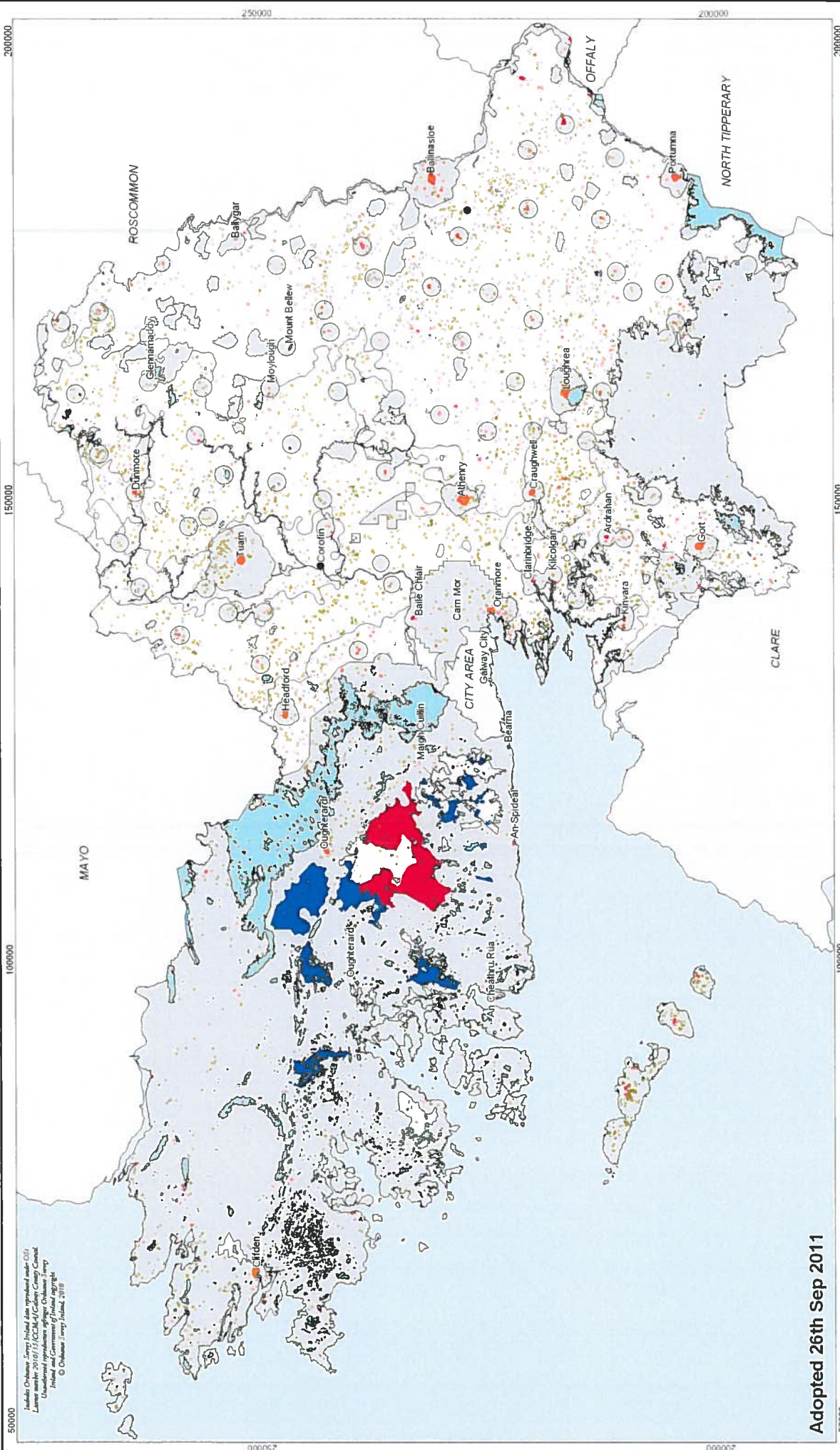
- 17 - Carracee (Castle Bay to Glencoh)
- 18 - Berraghoboy bay and eastern banks
- 20 - West Coast (Gorteen bay to Clifden)
- 21 - Killybeg Harbour and southern banks
- 22 - Connemara National Park (including Lough Fee, Lough Inagh and Derryclare Lough)
- 23 - Joyce's Country (including Lehanagh Loughs and south Lough Mask)
- 24 - Aran Islands
- 25 - Lough Rea

SCALE: 1:400,000 (A3)

SOURCES:
 ORDINANCE SURVEY (IRELAND)
 GALWAY COUNTY COUNCIL
 LANDSCAPE AND LANDSCAPE CHARACTER ASSESSMENT FOR GALWAY COUNTY 2002
 GALWAY COUNTY DEVELOPMENT PLAN 2009-2015



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Adopted 26th Sep 2011

MAP WE-5D : STRATEGIC WIND FARM DEVELOPMENT AREAS AND BUILT HERITAGE



- SA - Strategic Areas
- AP - Acceptable in Principle Areas
- OC - Open to Consideration Areas
- NP - Not Formally Permissible Areas
- LW - Low Wind Speed

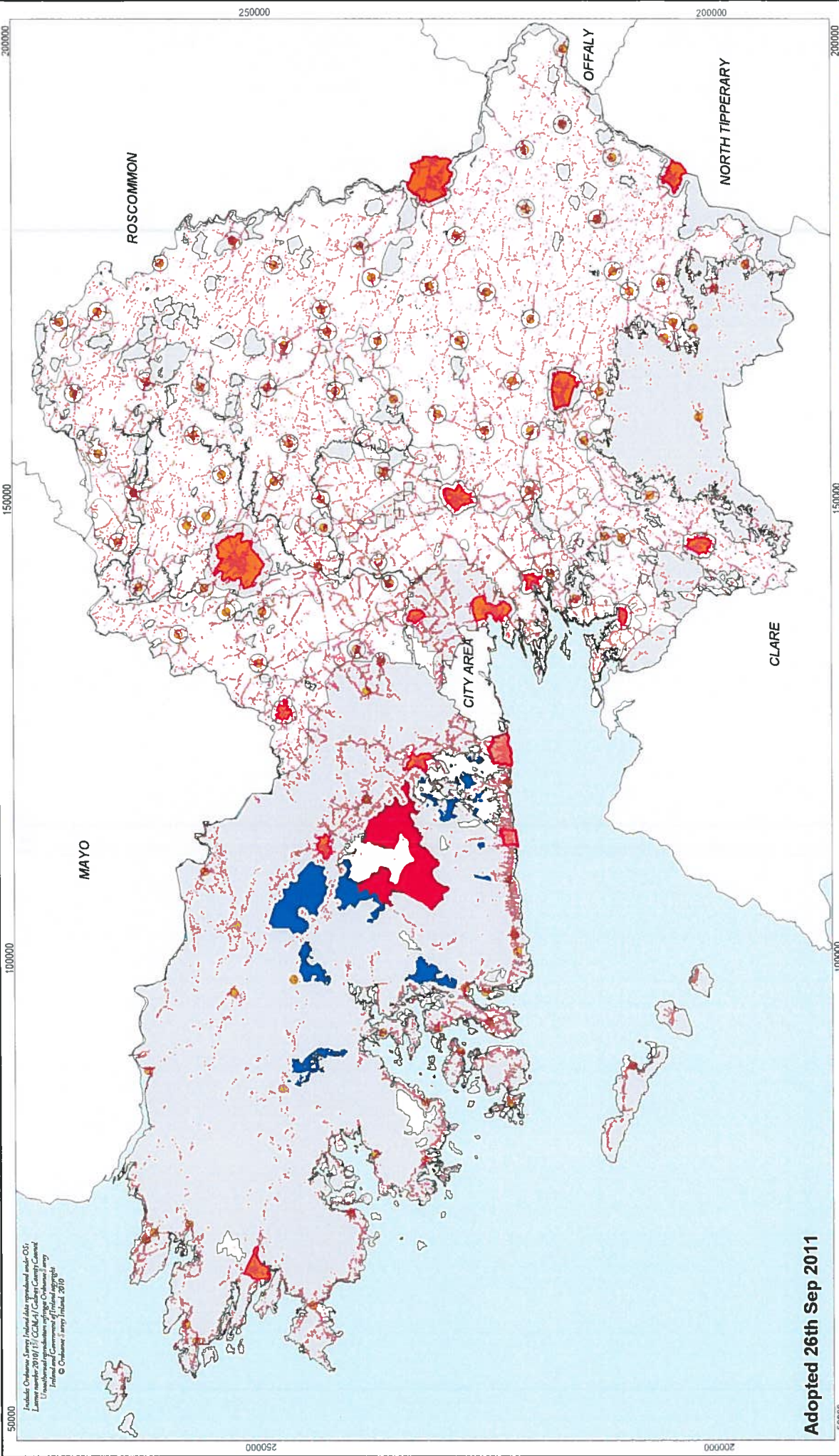
- Recorded Monuments and Places (RMP)
- Protected Structures (RPS)
- Architectural Conservation Areas (ACAs)

SCALE: 1:400,000 [A3]
0 7.5 15
Kilometres



SOURCES
ORDNANCE SURVEY IRELAND
GALWAY COUNTY COUNCIL
HERITAGE COUNCIL
DEPARTMENT OF ENVIRONMENT,
HERITAGE AND LOCAL GOVERNMENT

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Adopted 26th Sep 2011

MAP WE-5E : STRATEGIC WIND FARM DEVELOPMENT AREAS AND URBAN AND RURAL SETTLEMENTS Galway County Council Wind Energy Strategy 2011

- SA - Strategic Areas
- AP - Acceptable in Principle Areas
- OC - Open to Consideration Areas
- NP - Not Normally Permissible Areas
- LW - Low Wind Speed

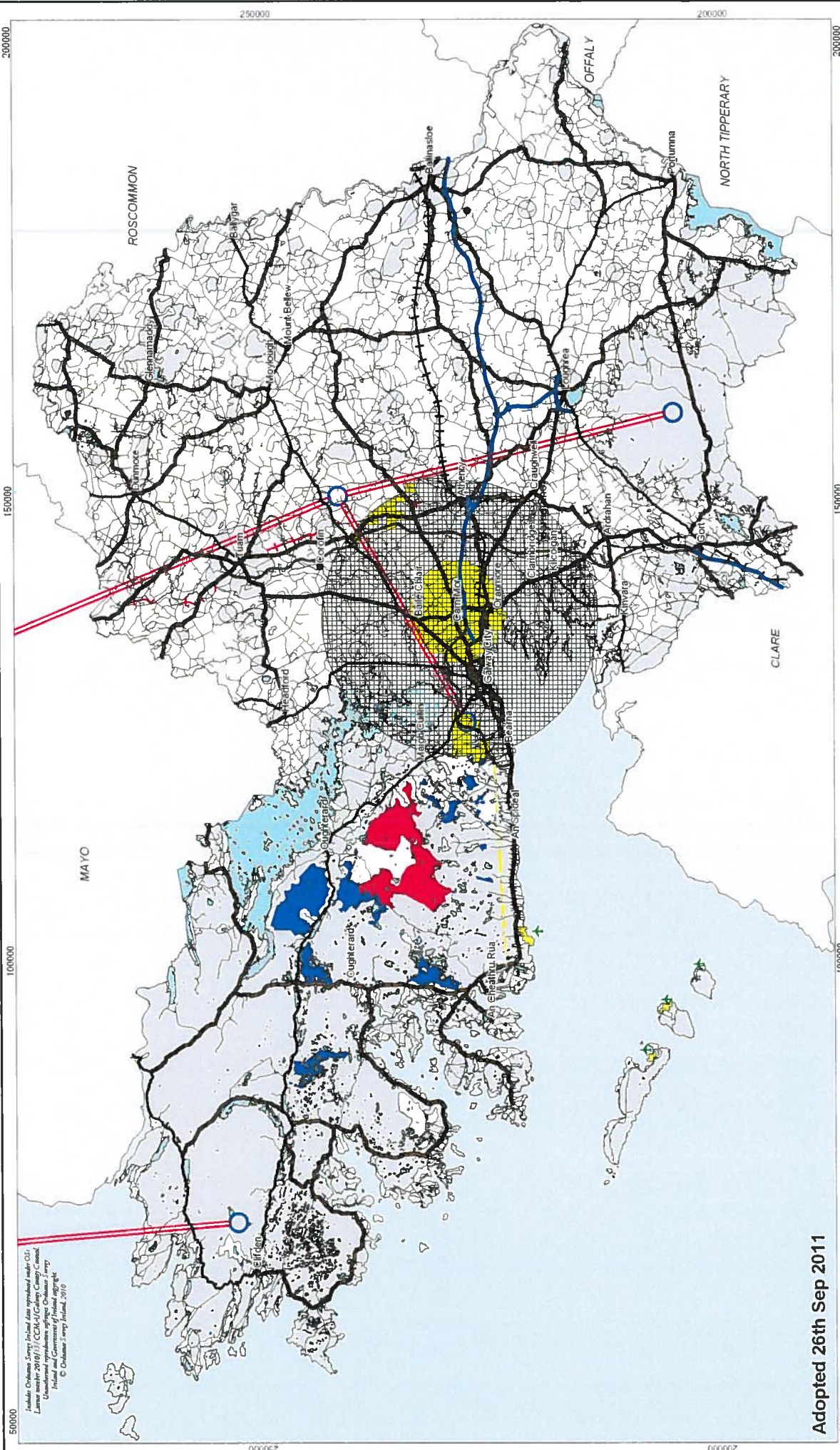


- An post residential postal addresses
- Plan Boundaries
- Service Centres / Small Settlements

SCALE: 1:400,000 (A3)




SOURCES
ORDNANCE SURVEY IRELAND
GALWAY COUNTY COUNCIL
AIP01



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Adopted 26th Sep 2011


MAP WE-5F : STRATEGIC WIND FARM DEVELOPMENT AREAS AND TRANSPORT AND UTILITY INFRASTRUCTURE Galway County Council Wind Energy Strategy 2011



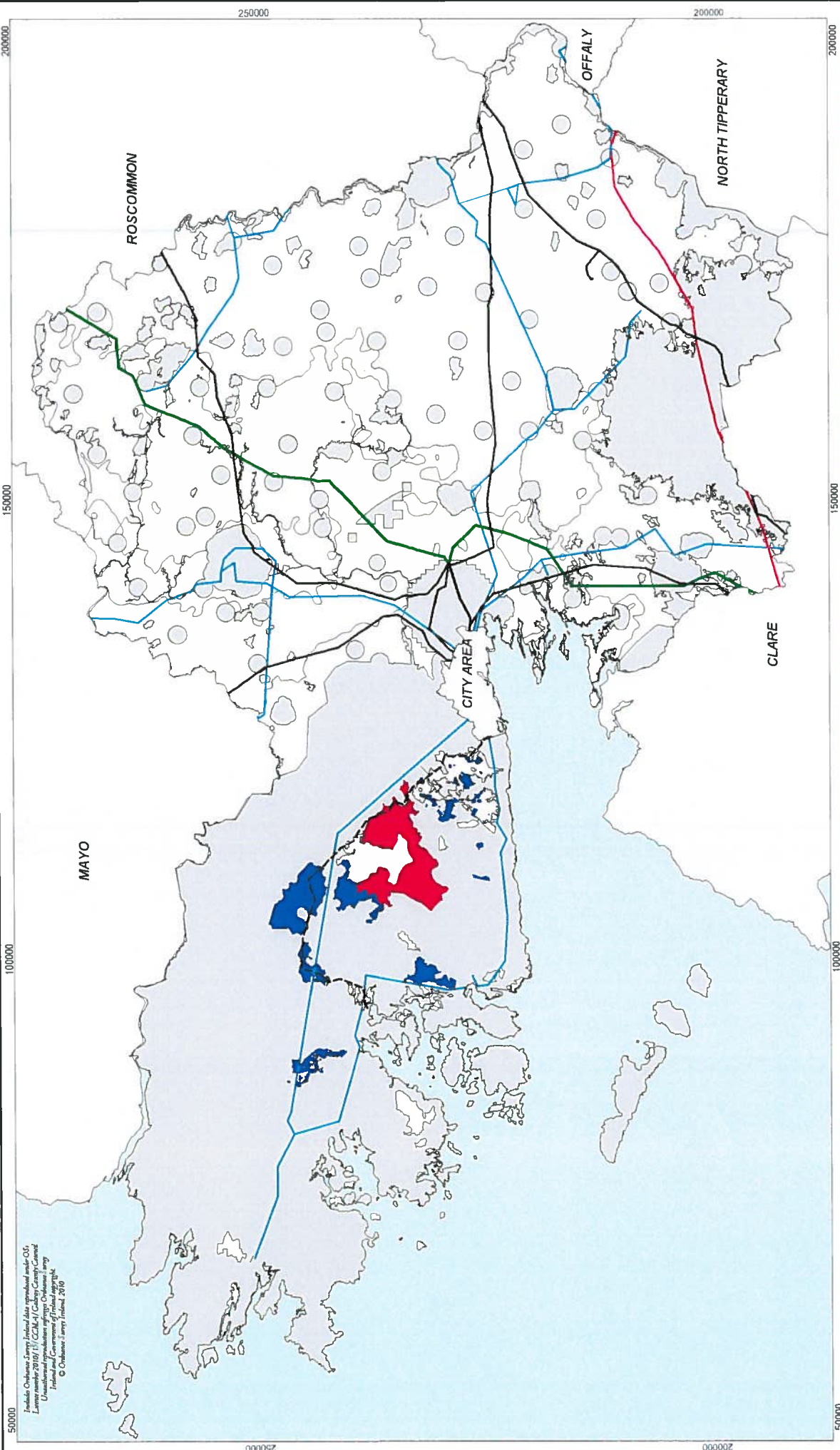
SCALE: 1:400,000 [A3]

SOURCES:
ORDNANCE SURVEY (IRELAND)
NATIONAL ROADS AUTHORITY
IRISH AVIATION AUTHORITY
GALWAY COUNTY COUNCIL

0 7.5 15
Kilometres



<ul style="list-style-type: none"> SA - Strategic Areas AP - Acceptable in Principle Areas OC - Open to Consideration Areas NP - Not Normally Permissible Areas LW - Low Wind Speed 	<ul style="list-style-type: none"> National Primary Roads National Secondary Roads Regional Roads Local Roads 	<ul style="list-style-type: none"> Recently Built Motorway & Link Roads Proposed Roads Indicative Road Corridor Existing Rail Proposed Rail 	<ul style="list-style-type: none"> Airports / Airstrips Airport Exclusion Zone Airport Safeguarding Zone CAMP Masts & LOS
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MAP WE-6 : WIND ENERGY STRATEGY - as Adopted 26th September 2011

Galway County Council Wind Energy Strategy 2011



- SA - Strategic Areas
- AP - Acceptable in Principle Areas
- OC - Open to Consideration Areas
- NP - Not Normally Permissible Areas
- LW - Low Wind Speed

Transmission Lines

- 400kV
- 220kV
- 110kV
- 38kV
- Approved 110kV

SCALE: 1:400,000 [A3]



SOURCES:
ORDNANCE SURVEY IRELAND
GALWAY COUNTY COUNCIL
ELECTRICITY SUPPLY BOARD



DATE : 26th Sep 2011