



<p>DAERA Environmental Advice for Planning</p> <h2>Standing Advice</h2> <p>Single Wind Turbines and Groundwater</p>

<p>Advice to assist in the assessment of potential groundwater impacts resulting from a single wind turbine development.</p>
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Purpose and Scope

This document provides planning authorities, applicants and agents advice tailored to be used for single turbine development applications not subject to formal Environmental Impact Assessment.

In practice this means that for single turbine development applications, consultation with DAERA Regulation Unit (Land and Groundwater Team) may not be necessary, as impacts to the groundwater environment may be covered by this standing advice.

Wind farms including extensions and alterations to established wind farms are not covered by the standing advice.

Issues such as priority habitat and species are also not covered by this standing advice and therefore it will still be necessary to consult DAERA Natural Environment Division.

Impacts on Groundwater

Single wind turbines are usually constructed using foundations. These foundations could potentially impact on groundwater flow paths, groundwater receptors (aquifers) or secondary receptors. Hence it is recommended that the applicant considers the risks to potential receptors identified initially through a desktop study only. If the desktop study (consisting of a water features survey) identifies any potential impacts then a more detailed risk assessment may be required.

Water Features Survey

The water features survey should utilize available information on water features, especially private water supplies, including detailed Ordnance Survey maps. Information on water features surveys (note only the desktop phase with regards to groundwater is required initially) can be found here:

<https://www.daera-ni.gov.uk/publications/best-practice-guidance-documents>

Reviewing the Water Features Survey

The planning authority can review a water features survey submitted by the applicant themselves using the criteria set out in the table in Appendix 1, without the need to consult DAERA Regulation Unit (Land and Groundwater Team).

The Planning Authority should satisfy themselves that no water features were identified within the following radius from the proposed wind turbine:

- surface water course: 10 m
- private (or public) water supply used for drinking water: 250 m
- designated wetland (groundwater dependent terrestrial ecosystem): 250 m
- any other spring, well or borehole that is not used as a drinking water supply: 50 m

Please see the detailed Appendix 1: Overview of water features.

Further Guidance

DAERA Guidance Document 'Wind Farm and Groundwater Impacts', which can be found by following the link below:

<https://www.daera-ni.gov.uk/sites/default/files/publications/daera/Wind%20farms%20and%20groundwater%20impacts.pdf>

The applicant should follow all relevant pollution prevention guidelines, which can be downloaded from the NetRegs webpage: <http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/>

Appendix 1: Overview of water features

Water feature	Criteria	Examples of suitable information source	Examples of unsuitable information source
Use of detailed Ordnance Survey map (1:10,000 scale)			
Surface water course: 10 m radius	Map extract showing circle with 10 m radius around turbine or scale bar and the absence of surface water courses	River Basin Map Viewer http://apps.d.aera-ni.gov.uk/RiverBasinViewer/	big scale maps: e.g. 1:50,000; 1:250,000
Any other spring, well or borehole that is not used as a drinking water supply: 50 m radius	Map extract showing circle with 50 m radius around turbine or scale bar and the absence of springs, wells or boreholes	<ul style="list-style-type: none"> • River Basin Map Viewer http://apps.d.aera-ni.gov.uk/RiverBasinViewer/ • NIEA WMU Water Information Request Viewer https://apps.d.aera-ni.gov.uk/WaterInformationRequest/ 	big scale maps: e.g. 1:50,000; 1:250,000
Use of GIS shapefile or online mapping system			
Wetland/ groundwater	Map extract showing	<ul style="list-style-type: none"> • River Basin Map Viewer: 	any other map

dependent terrestrial ecosystem (GWDTE) within 250 m	circle with 250 m radius around turbine or scale bar and absence of wetlands	https://apps.d.aera-ni.gov.uk/RiverBasinViewer/ <ul style="list-style-type: none"> Download shapefile for GWDTE from DAERA website https://www.daera-ni.gov.uk/publications/groundwaters-digital-datasets	products
Private (or public) water supply used for drinking water within 250 m		<ul style="list-style-type: none"> NIEA Abstraction & Impoundment licensing - Download shapefile for AIL from DAERA website: https://www.daera-ni.gov.uk/publications/abstractions-and-discharges NIEA WMU Water Information Request Viewer https://apps.d.aera-ni.gov.uk/WaterInformationRequest/ 	any maps including maps from the Geological Survey of Northern Ireland and Department of Infrastructure Rivers (Flood maps)
Applicant needs to request information on groundwater abstractions and private water supplies			
Private (or public) water supply used for drinking water within 250 m		<ul style="list-style-type: none"> NIEA Drinking Water Inspectorate dwi@daera-ni.gov.uk Environmental Health Department of the local council 	any maps including maps from the Geological Survey of Northern Ireland and Department of Infrastructure Rivers (Flood maps)

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