Supplementary Guidance
Onshore Wind Energy

2014

Shetland Local Development Plan

LOCAL DEVELOPMENT PLAN

Adopted February 2018

Shetland Islands Council

Shetland Local Development Plan

Supplementary Guidance – Onshore Wind Energy

Contents Page

1. Context

Purpose of This Guidance

The purpose of this Supplementary Guidance (SG) is to:

- Provide developers with information and guidance on where, in principle, large-scale onshore wind energy developments and all associated infrastructure, are likely to be acceptable;
- Provide the criteria in which developments over 50KW will be assessed.
- Provide a policy framework for Shetland Islands Council to use as a basis for consultation responses as part of any Section 36 applications for wind energy developments.
- Provide guidance for micro-turbine schemes.

Potential developers are asked to refer to this guidance as well as the Local Development Plan and other Supplementary Guidance Documents from the outset. See http://www.shetland.gov.uk/planning/LocalDevelopmentPlan.asp. The Council encourages developers to contact the Planning Service at an early stage to discuss their proposals.

How to use this Guidance

The Shetland Local Development Plan (LDP), together with any associated Supplementary Guidance, sets out the policies and criteria against which planning applications submitted in Shetland will be considered. All proposals must conform to the relevant Local Development Plan policies and the policies contained within other relevant Supplementary Guidance documents.

This Supplementary Guidance sets out detailed policy advice to help you meet the requirements of the Plan. It is therefore recommended that it be read in conjunction with the policies in the Plan and any other Supplementary Guidance relevant to the type of development proposed. Section 1 provides the spatial framework for wind energy developments and Section 2 provides the detailed policy criteria for assessing development proposals.

Renewable Energy Resource

Shetland is well placed to make a positive contribution to the national targets through the development of the outstanding renewable resource available such as wind, wave and tidal. The Council is committed to harnessing the benefits from renewable energy for the good of the community at large.

Shetland demonstrates a number of strengths that support the development of renewable technologies, in particular wind. Shetland Islands Council seeks to support these opportunities ensuring that Shetland's renewable energy potential is optimised.

Renewable Energy Targets

In response to the Climate Change (Scotland) Act 2009 the Scottish Government has set targets of generating 30% of all Scottish energy needs including 11% of heat demand to be met by renewable sources by 2020. The Scottish Government also aims to reduce emissions by 42% by 2020 and by 80% by 2050.Development Plans

have a duty to contribute to sustainable development and encourage zero and low carbon developments.

Renewable energy developments are a key component for delivering the ongoing efforts for climate change mitigation and the move towards a low carbon society.

2. Assessing Development Proposals

National Policy

SPP contains a requirement for Planning Authorities to provide a spatial framework for onshore wind farms.
Within the spatial framework the planning authority should classify land in to one of the following groups:

> Group 1: Areas where wind farms will not be acceptable, these areas are defined as land that is designated as either a National Park or a National Scenic Area.
> Group2: Areas of significant protection. Wind farm development may be appropriate in some circumstances in these areas. However, further consideration will be required to demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation.
> Group 3: Areas with Potential for wind farm development. Areas beyond groups 1 and 2 where wind farms are likely to be acceptable, subject to detailed consideration against identified policy criteria.

Local Development Plan Policy

The Local Development Plan is the main policy reference for all development within Shetland; the Planning Authority will use the land use planning policies contained in the Plan to determine applications submitted under the Planning (Scotland) Acts. Any potential developer should consult the Local Development Plan to ensure compliance with the relevant policies.

The Shetland Local Development supports and encourages development of a diverse range of renewable energy technologies in order to maximise the associated social and economic opportunities whilst protecting the environment. Appropriately targeted renewable energy development has the potential to reduce Shetland's reliance on fossil fuels, thus offering protection against rising oil and gas prices. The Local Development Plan identifies areas for residential and mixed use development known as Areas of Best Fit and Sites with development potential. Any potential sterilisation of these areas will be a material consideration in the determination of wind energy applications.

LDP RE1 Renewable Energy

The Council is committed to delivering renewable energy developments that contribute to the sustainable development of Shetland. Proposals for renewable energy developments will be supported where it can be demonstrated that there are no unacceptable impacts on people (benefits and disbenefits for communities and tourism and recreation interests) the natural and water environment, landscape, historic environment and the built environment and cultural heritage of Shetland.

All proposals for renewable energy developments will be assessed with consideration of their cumulative impacts.

Further detailed guidance on renewable developments is provided in Supplementary Guidance – Onshore Wind Energy which will contain the spatial framework for large scale wind energy developments of 20MW and above generating capacity.

Justification

Renewable energy comes from natural sources that are constantly and sustainably replenished such as sunlight, wind, rain, tides, wave and biomass; it also includes energy from waste.

This policy and related guidance supports and facilitates the alternative generation of energy whilst safeguarding Shetland's unique natural and historic environment.

Renewable energy developments can provide a sustainable opportunity for diversification within the Shetland economy.
There is potential for communities and small businesses to invest in ownership of renewable energy projects or develop their own projects for the benefit of local communities.

The Scottish Government's targets are to reduce emissions by 42% by 2020 and by 80% by 2050 through the Climate Change (Scotland) Act 2009. Development Plans have a duty to contribute to sustainable development and encourage zero and low carbon developments.

Shetland demonstrates a number of strengths that support the development of renewable technologies and the Plan seeks to support these opportunities ensuring that Shetland's renewable energy potential is optimised.

Supplementary Guidance identifies broad areas of search illustrating areas where there are no known significant constraints to large scale windfarm developments. It will also give detailed guidance on renewable energy.

Classifying Wind Energy Developments

Wind energy developments have been categorised in the table below. Although capacity is a primary determinant, other factors such as the number of turbines or size affect the information required and how the Council will consider applications for consent.

Table 1. Wind Energy development categories

Category	Definition	Relevant Policies
VERY LARGE	• Total Capacity of 50MW or more (includes extensions to such generating stations and those that would take the combined capacity over 50MW)	These applications are dealt with through the Scottish Government's Energy Consents Unit in accordance with Section 36 of the Electricity Act 1989. The Policies contained within the Shetland Local Development Plan and this supplementary guidance document will be used to form the basis of any response made by Shetland Islands Council, as a consultee, on any such application.
LARGE	• 8 or more turbines and/or • turbines larger than 50 meters to hub and/or 80 metres to tip and/or • Total capacity between 20MW and 50MW	All developments will be assessed against the appropriate LDP policies. For turbines over 50m height (to hub), the developer will be required to submit a Zone of Theoretical Visibility (ZTV) map to a radius of a minimum of 20km with visualisations and photomontages and will be advised of other requirements through the EIA Screening process.
MEDIUM	• 4 to 7 turbines with a hub height of 50 metres or less and/or • Total capacity over 5MW and up to 20 MW	All developments will be assessed against the appropriate LDP and SG policies. For turbines in the hub height range 15m to 50m, developers will be required to submit a Zone of Theoretical Visibility (ZTV) map to a radius of 15km with photomontages.
SMALL	• Up to three turbines with hub height 15 to 50 metres or less and/or • Total capacity greater than 50kw and up to 5 MW	All developments will be assessed against the appropriate LDP and SG policies. Depending on the landscape sensitivity and the capability of the location to support wind turbine development and number of turbines developers may be required to submit a Zone of Theoretical Visibility (ZTV) map with photomontages
MICRO GENERATION	• Up to three turbines with hub height 15 metres or less, rotor diameter 10.5 metres or less and total capacity of 50kW or less.	Depending on the landscape sensitivity and the capability of the location to support wind turbine development and number of turbines developers may be required to submit a Zone of Theoretical Visibility (ZTV) map with photomontages.

3. Supplementary Guidance Policy Section

Section 1 - Spatial Framework

The Spatial polices have been developed following the guidance set out in Scottish Planning Policy by the Scottish Government. With reference to Group 2 areas as defined in SPP the Planning Authority has included data as available at the time of publication. In relation to carbon rich soils, deep peat and priority peatland habitat developers should consult the map produced by Scottish Natural Heritage as the most up to date information available on the location of carbon rich soils, deep peat and priority peatland. This information should be supported by site specific survey. . The map can be accessed at: https://www.nature.scot/professional-advice/planning-and-development/general-advice-planners-and-developers/planning-and-development-soils/carbon-and-peatland-2016-map

The Local Development Plan does not contain defined settlement boundaries due to the nature of the settlement pattern in Shetland. Therefore, the community separation for consideration of visual impact has not been included in group 2. The spatial framework for wind energy applies to large scale and very large scale developments as set out in Table 1.

Maps 1, 2 and 3 are indicative in order to highlight the key designations and safeguarding areas. Developers should use this information as a starting point to identify the designations relevant to their proposals.

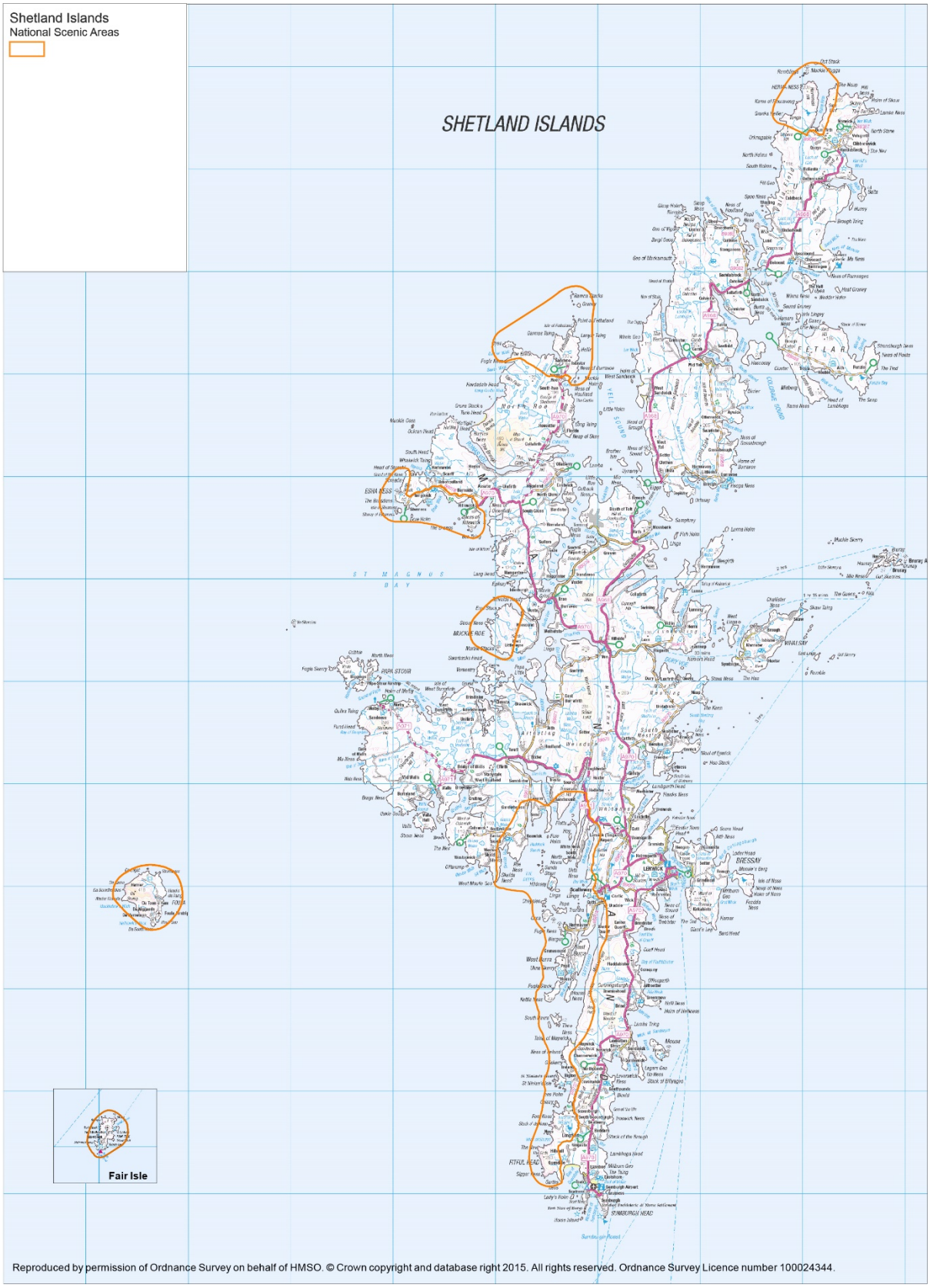
Justification

This spatial framework has been developed following Scottish Government guidance on preparing spatial frameworks for onshore wind farm developments, incorporating Land Use Consultants Landscape Sensitivity Study 2009. It also takes account of the work done to establish Local Nature Conservation Sites (LNCS), Local Landscape Areas (LLA), safeguarding and archaeology. The framework applies to wind energy proposals of 20MW and above thus, large and very large scale developments.

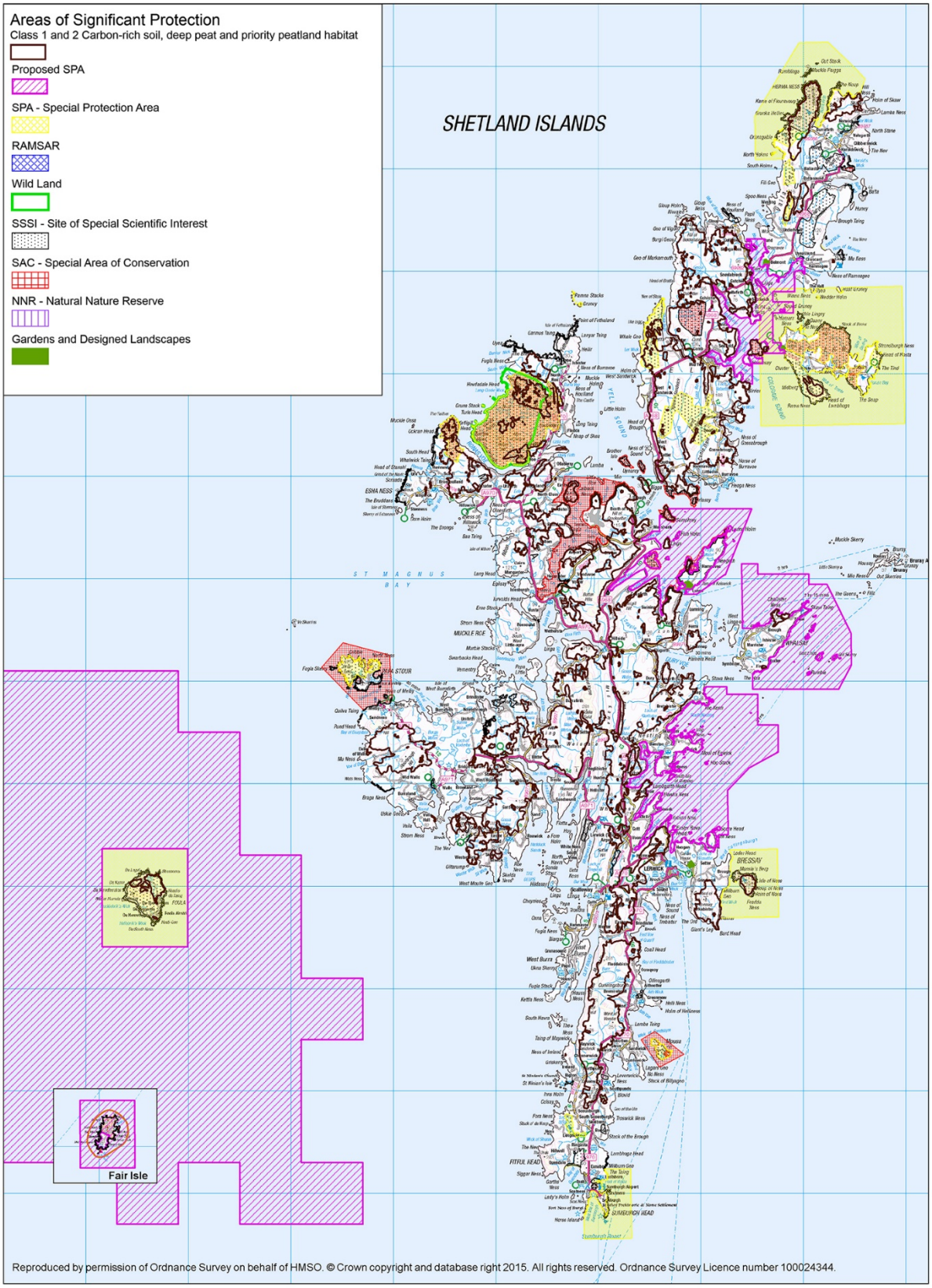
Table 2. - Spatial Framework

Reference	Policy	
Spatial Policy 1 **Group 1: Areas where wind farms will not be acceptable**	Scottish Planning Policy states that wind farms are unacceptable within National Parks and National Scenic Areas. Map 1 identifies the National Scenic Area designation for Shetland.	**Map 1**
Spatial Policy 2 **Group 2: Areas of significant protection.**	The areas identified on Map 2 have a recognised sensitivity to large scale wind energy developments and as such are afforded significant protection due to their national or international natural heritage value. In line with Scottish Planning Policy Large Scale Wind energy developments may be permitted within these areas where it can be demonstrated that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation. Any potential development must demonstrate that the development criteria ***(contained in section 2 of this guidance)*** can be satisfactorily achieved. Any application for wind energy developments will be required to meet all applicable Shetland Local Development Plan policies and relevant National and International guidance.	**Map 2**
Spatial Policy 3 **Group 3: Areas outwith groups 1 and 2. These areas are considered to be capable, in principle, but must satisfy the development criteria set out in Section 2 of this guidance**	Areas out with groups 1 and 2. These areas are considered to be capable, in principle, of supporting large scale wind energy developments within Shetland. Proposals for wind energy developments within these areas must satisfy the development criteria set out in Section 2 of this guidance. Any application for wind energy developments will be required to meet all applicable Local Development Plan policies and relevant National and International guidance.	**Map 3**

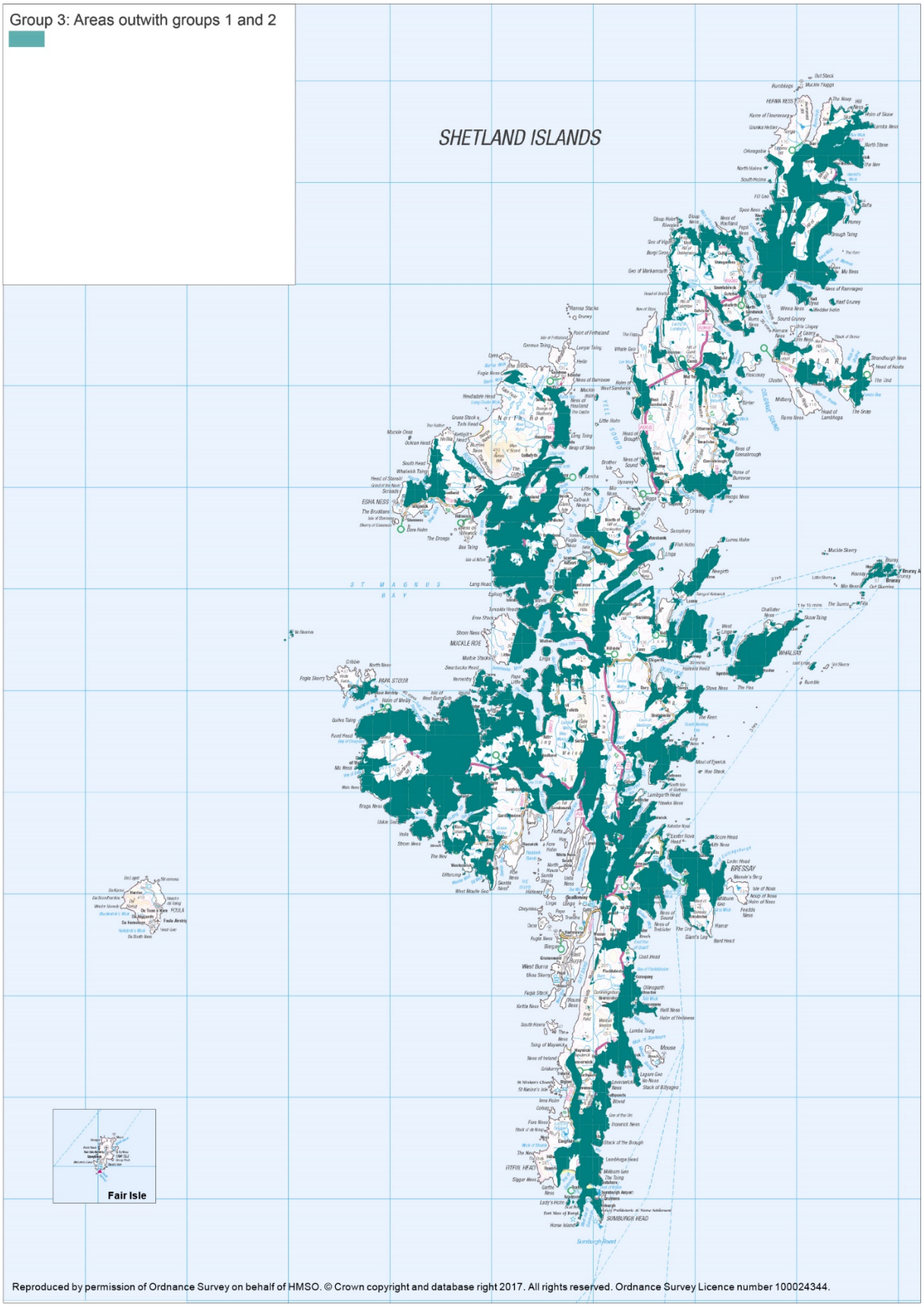
Map 1 – Areas where wind farms will not be acceptable



Map 2 – Areas of Significant Protection



Map 3 - Group 3 Areas considered to be capable, in principle of supporting large scale wind energy developments



Section 2 - Development Criteria

This section provides detailed local policies that will form the basis of the decision making process for proposed onshore wind energy developments. Scottish Planning Policy (SPP) 2014 paragraph 169 (http://www.gov.scot/Resource/0045/00453827.pdf) lists the key considerations in the development management process for onshore wind energy developments. The policies within this section provide a local context to these considerations. These policies, alongside all other relevant Local Development Plan and Supplementary Guidance policies will be used to determine Planning Applications for onshore wind energy proposals.

Policies

- DC1 Landscape and Visual Impact
- DC2 Cumulative Impact
- DC3 Natural Heritage
- DC4 Impacts on communities
- DC5 Water Resources
- DC6 Decommissioning
- DC7 Historic Environment

DC1 Landscape and Visual Impact

All applications must be accompanied by an assessment of the likely impact of the proposed development on landscape character and visual amenity. This assessment must meet the requirements of published guidance in Scottish Planning Policy and from national statutory consultees and accepted good practice.

Developers of very large, large and medium scale proposals will be required to show that their proposal conforms to the guidance provided in the Landscape Sensitivity and Capacity Study for Wind Farm Development on The Shetland Islands (Land Use Consultants for SIC, 2009) for each affected visual compartment. Proposals shall take account of the described landscape sensitivities of each landscape character area, site specific landscape and visual assessment and other guidance produced by statutory bodies. Zone of Theoretical Visibility (ZTV) maps must be included as recommended in relevant guidance for:

> For turbines over 50m height (to blade tip), the developer will be required to submit a Zone of Theoretical Visibility (ZTV) map to a minimum radius of 20km with visualisations and photomontages and will be advised of other requirements through the EIA Screening process.
>
> For turbines in the hub height range of over 15m and up to 50m, developers will be required to submit a ZTV map to a radius of 15km with photomontages

Depending on the landscape sensitivity of the proposed location and its capability to support wind farm development and potential cumulative impact of the development, any applicant may be required to submit a ZTV. This includes Small and Micro Generation turbines. In determining the sensitivity of the landscape developers should reference the 'Landscape Sensitivity and Capacity Study for Wind Farm Development on the Shetland Islands' 2009 - http://www.shetland.gov.uk/developmentplans/documents/ShetlandIslandsCouncilLandscapeSensitivityStudyFinalReport.pdf

When assessing these impacts, the associated infrastructure, including tracks, power lines and ancillary development should be considered as well as the scale and pattern of the turbines.

The developer will submit a Landscape and Visual Impact Assessment that includes an assessment of cumulative landscape and visual effects, enabling SIC to fully understand the nature and significance of potential effects upon the landscape and views. This should be undertaken and presented in line with guidance issued by Scottish Natural Heritage, the Landscape Institute and The Institute of Environmental Management & Assessment and include all elements of the development, including all ancillary infrastructure (such as access tracks, borrow pits, any necessary road widening/ straightening, turbine foundations, crane hard standings, substations, control rooms or offices and car parks). Links to the relevant guidance can be found within the further guidance section of this document.

Justification

Any on-shore and offshore wind energy development and its associated infrastructure will have an impact on the landscape character and visual amenity of Shetland). The aim of this policy is to direct development to where it will be least damaging to the landscape and visual amenity. Scottish Planning Policy, paragraph 169, sets out a range of factors to be considered in determining onshore wind energy developments - see http://www.scotland.gov.uk/Resource/0045/00453827.pdf. However, this list is not exhaustive and each application must be determined on its own merits taking in to account local circumstances.

DC2 Cumulative Impacts

Developers will be expected to demonstrate that proposals will not result in unacceptable cumulative impacts. In addition to DC1 Landscape and Visual Impact Assessment, developers will be asked to take into account a wide range of cumulative factors including the natural, historic and built environment, the visual amenity of residents and wider socio-economic impacts. All applications will be assessed on a case-by-case basis and should be accompanied by an assessment of the likely cumulative impacts on natural heritage, particularly in relation to bird species and peatland. When assessing cumulative impacts on natural heritage, all associated infrastructure, including tracks, power lines and ancillary development should be considered. Cumulative impacts on natural heritage can include, but are not limited to:

- Collision risk;
- Displacement;
- Disturbance;
- The creation of barriers to species movements
- Habitat loss

Justification

Scottish Planning Policy identifies a number of factors to be taken into consideration when determining planning applications for on-shore wind energy developments. Any such development will have a range of environmental, social and economic effects on the surrounding area therefore due cognisance must be given to these

impacts in combination with other development within the area. The nature of onshore wind energy developments and the associated impacts means that, when taken cumulatively, existing and consented energy developments could limit the capacity for further wind energy development.

DC3 Natural Heritage

Conservation of Species and Habitats

Proposals for onshore wind development should show that, individually or cumulatively, they will not adversely affect the conservation status of a species or habitat, or stop a species or habitat from reaching favourable conservation status, at international, national or regional level. Proposals should address the following:

Ornithology

All applications for onshore wind energy development must be accompanied by an assessment of the risks to bird populations.

Shetland supports important populations of birds in addition to those that form part of the qualifying interest of designated sites. Ornithological studies and surveys should include an assessment of the following risks:

- Collision with turbines and associated infrastructure;
- Displacement of birds due to loss of suitable feeding and/or breeding/wintering habitat;
- Disturbance within and around the turbine envelope; and
- Creating a barrier to dispersal, regular movements or migration.

The risk of disturbance to Schedule 1 of the Wildlife and Countryside Act, or Annex 1 of the EC Birds Directive bird species during construction and operation of an onshore wind development is also an important consideration. For some species this is of greater potential significance than collision mortality. A Bird Protection Plan should be included within the Draft Habitat Management Plan as part of an onshore wind development proposal and should include consideration of the potential for activities to disturb bird species, particularly during the bird breeding season and other seasonal bird activity, such as migration. Bird Protection Plans should also include information on the monitoring of the development's effects on bird populations.

European Protected Species

Wind farm development proposals should also consider the potential impact of wind developments on otters, and identify the potential need for surveys and mitigation measures, all as set out in SG Natural Heritage.

UKBAP Priority Species

Wind farm development proposals should consider the potential impact of wind developments on UKBAP Priority Species, and identify the potential need for surveys and mitigation measures.

Habitat Management Plans

A Draft Habitat Management Plan (HMP) should accompany applications for onshore wind developments where it is necessary to mitigate or compensate for impacts on important habitats or species

Habitat Management Plans are usually implemented within the area of the development, but may include areas outwith the development areas, subject to relevant agreements. A Habitat Management Plan should include:

- The reason for the HMP;
- The aims and measurable objectives of the HMP;
- An appropriate methodology, including details of timescales, locations and responsibilities;
- A monitoring schedule;
- Monitoring, reporting and revision proposals.

Peat

Where very large scale and large scale wind energy development is proposed to be on peat it is expected that a carbon calculation will be used during the preparation of the proposal. It should be demonstrated that the whole life carbon balance of the proposals has been considered. For windfarms that are below the generation/ size threshold for application of the carbon calculator, evidence should still be submitted as part of the planning application to provide evidence that the carbon impact of the development has been minimised.

It should also be demonstrated how the layout and design of the proposal, including all infrastructure, has been devised to avoid impacts on peat. Guidance on peat depth surveys, construction methods on peat and suitable methods of re-use of excavated peat can be found in the links in further advice and guidance. Where avoidance is impossible details of how impacts are minimised and mitigated should be provided, including a detailed map of peat depth and characteristics. Geotechnical and hydrological information should be included identifying the presence of peat at each site, including the risk of landslide connected to any development work. Potential impacts on peat that should be considered include, but are not limited to:

- Waste management;
- Drainage;
- Dewatering
- Excavation;
- Pollution;
- The potential for landslides and bog bursts;
- The effects on peatland habitat and associated species;
- Other ecological functions of peat

Any Habitat Management Plan developed, as part of the proposal should include consideration of peatland habitats.

Justification

Certain natural heritage features, whether habitats, species, landscape geological or geomorphological in nature, are protected under European and/ or UK law. Their presence on or near a development site will require consideration to ensure compliance with the relevant legislation and more generally that no adverse effect on the population or feature arises, including cumulatively.

DC4 Impacts on Communities

Development proposals must, in combination with existing and consented wind energy developments, assess the likely impact on communities and the long term impacts on amenity including outdoor access, recreation and tourism opportunities.

Justification

Planning applications must be accompanied by an assessment of the effects on these locations covering a range of factors including; visual amenity, noise, shadow flicker, electromagnetic interference, designated sites, road safety and construction/ decommissioning logistics, impacts on access routes and recreation interests, phasing and any other identifiable significant effects.

DC5 Water Resources

Onshore wind energy development and/ or associated infrastructure proposals should demonstrate that there will be no significant adverse effects on the water environment, including Ground Water Dependant Terrestrial Ecosystems (GWDTE's), which are types of wetland protected by the Water Framework Directive.

Scottish Water operates local telemetry links between several assets in Shetland. To ensure that there is no interference in their operation Scottish Water adopts Ofcom's advisory recommendation on the separation distance between wind energy systems and telemetry equipment; the tips of the turbine's propellers should be a minimum distance of 500m away from the transmitter. The tips of proposed turbine propellers should be at least 300m clear of the line of sight between the transmitters. These areas are displayed on Map 3 as local safeguarding.

Justification

The Council has a duty to protect and, where possible improve, Shetland's water environment in its role as a responsible authority under the Water Framework Directive. It is a key objective of the Scottish River Basin Management Plan and the Shetland Area Management Plan that water bodies and watercourses achieve good ecological status and that there is no deterioration in the current ecological status. The water environment includes burns, rivers, ponds, lochs, wetlands, standing, tidal or coastal waters as well as ground water.
Foundations, borrow pits and linear infrastructure such as roads, tracks, and trenches can disrupt groundwater flow and impact upon these sensitive receptors. Mapping and subsequent avoidance of GWTDE in development proposals will avoid delay and expense to the developer both during the project and after construction. Detailed advice on the survey requirements is available from SEPA's website.
The water environment has a finite capacity to receive pollutants. The provision of sustainable drainage infrastructure is essential in protecting, maintaining and improving the water environment.

DC6 Decommissioning

Proposals for onshore wind energy developments and associated infrastructure should be accompanied by a decommissioning statement detailing the method of reinstatement of the site to its original condition. The decommissioning statement should include details of the removal of all turbines and ancillary buildings and related plant as well as the reinstatement of land altered by any ancillary

infrastructure. Decommissioning statements should take into account best practice guidance from the Scottish Government, Scottish Natural Heritage and the Scottish Environment Protection Agency.

Justification

The lifespan of most commercial wind turbines is typically suggested to be 25 years and therefore Planning Permission will usually be granted for this period.

Due to the limited lifespan of the equipment associated with wind energy developments it is essential that the removal of redundant equipment and associated ground disturbance be considered from the outset of the project development so as to ensure that full site restoration is achieved. Such consideration should include opportunities for repowering that, though it can take several forms, is simply an application for a new onshore wind development on a site where onshore wind represents the established land use or forms part of the planning history of the site.

DC7 Historic Environment

Shetland's historic environment encompasses Scheduled Monuments, listed buildings, conservation areas, archaeological sites and landscapes, historic gardens and designed landscapes. Onshore wind energy development and/ or associated infrastructure proposals should not adversely affect the historic environment or its key features, including its setting and intervisibility between assets.

Applications for wind energy developments should include an assessment of the surrounding historic environment and potential impacts on the structures and their setting. Historic Environment Scotland has guidance on the setting of historic environment assets "Managing Change in the Historic Environment: Setting" at https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=80b7c0a0-584b-4625-b1fd-a60b009c2549. Additionally, historic environment designations can be identified by using the following link to Historic Environment Scotland Designations Map found at http://historicscotland.maps.arcgis.com/apps/Viewer/index.html?appid=18d2608ac1284066ba3927312710d16d.

All other significant archaeological features beyond those detailed above should be preserved in situ wherever feasible. Where preservation in situ is not possible the planning authority should ensure that developers undertake appropriate archaeological excavation, recording, analysis, publication and archiving in advance of and/ or during development. In the case that archaeological remains become apparent after development has commenced the Shetland Islands Archaeologist should be informed and a course of appropriate action agreed and implemented prior to work continuing.

Justification

The setting of archaeological and historical features is important to our understanding of the historic environment, and thus can be sensitive to new developments. Many areas within Shetland include a number of assets where intervisibility between them is regarded as a key feature of their historic importance, which increases their sensitivity to new developments.

There are areas in Shetland where historic features are more prevalent, for example, the close network of archaeological sites in south Dunrossness, including: Jarlshof, Old Scatness, Ness of Burgi, Sumburgh Head and including Eastshore and Clevigarth Brochs. This is an example where intervisibility between assets is a key feature of the area.

Historic Gardens and Designed Landscapes within Shetland are also sensitive to new developments. As views both in and out of these are important characteristics their settings should be safeguarded from adverse impacts.

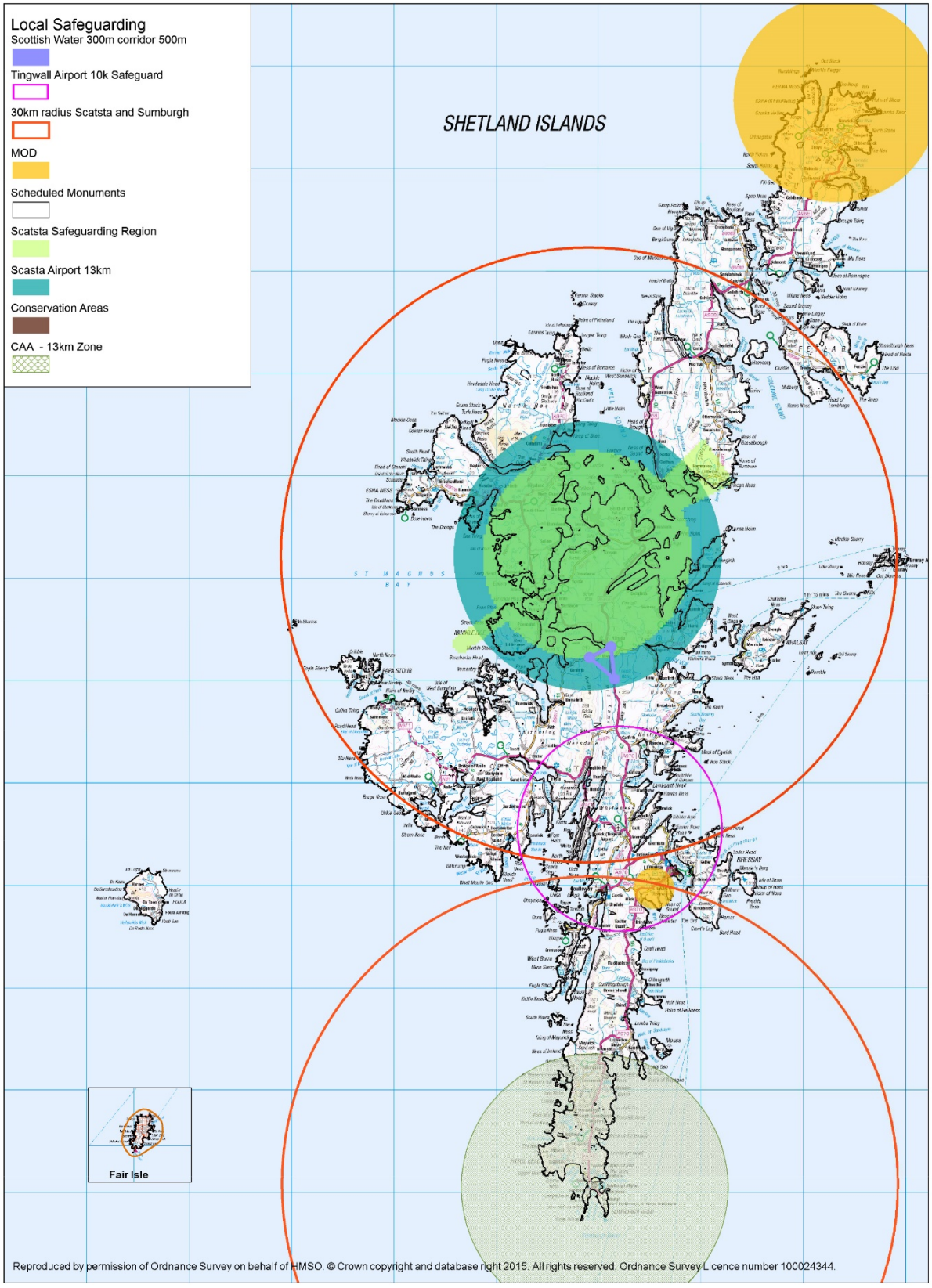
Micro Generation Proposals

Micro generation is defined as the production of heat (less than 45 kilowatt capacity) and/or electricity (less than 50kw capacity) from zero or low carbon source technologies. Wind energy generated through micro-generation technologies is increasingly seen as part of a wider strategy to address climate change and fuel poverty.

The Scottish Government and Shetland Islands Council support the principle of wind energy development. Some micro generation developments may be deemed permitted development, however, this is a very complex area where prior approval is often required. Developers should seek advice from SIC Development Management prior to progressing any development proposals.
Further guidance on micro-renewables can be found at http://www.snh.gov.uk/planning-and-development/renewable-energy/micro-renewables/

The Scottish Government has produced a series of planning advice documents online relating to renewable energy developments. These are regularly updated to reflect best practice. The fact sheet on Microgeneration can be found at: http://www.scotland.gov.uk/Resource/0041/00415738.pdf

Map 4 – Local Safeguarding



4. Further Advice and Guidance for developers

General

All applications for proposed wind energy applications must contain the following:

- A completed full planning application
- A site and location plan of the proposed turbine(s) (showing the nearest noise receptor if applicable)
- Noise impact assessment
- Specification of the proposed turbine(s)

The list above outlines the minimum level of information required in order to validate an application. However, depending on the individual circumstances of each application the applicant may be asked to provide further information. For example in line with table 1contained within this document, applicants may also need to provide:

- A zone of theoretical visibility map
- An EIA could be required depending on height of turbine(s) and sensitivity of area

Planning guidance

The following documents provide planning guidance on windfarm developments:

SEPA - Land Use Planning System Guidance Note 4 on on-shore windfarm developments, available at:
http://www.sepa.org.uk/media/136117/planning-guidance-on-on-shore-windfarms-developments.pdf

SNH - 'Good practice during wind farm construction', available at
http://www.snh.org.uk/pdfs/strategy/renewables/Good%20practice%20during%20windfarm%20construction.pdf

Scottish Renewables - 'Wind Farms and Peatlands Good Practice Principles, available at
https://www.rspb.org.uk/Images/wind_farms_and_peatland_good_practice_tcm9-340834.pdf

The following sections provide links and guidance relating to the development criteria outlined in Section 2 of this document. Applicants are encouraged to enter into pre-application discussions with the Council and other relevant organisations such as SEPA and SNH to discuss the potential development and any issues that may arise at an early stage.

Landscape and visual impacts

Further advice on **landscape and visual impacts** can be found at http://www.snh.gov.uk/planning-and-development/renewable-energy/onshore-wind/landscape-impacts-guidance

Landscape Sensitivity and Capacity Study for Wind Farm Development on the Shetland Islands 2009.
http://www.shetland.gov.uk/developmentplans/documents/ShetlandIslandsCouncilLandscapeSensitivityStudyFinalReport.pdf

Cumulative impacts

Developers should refer to SNH's guidance 'Assessing the Cumulative Impact of Onshore Wind Energy Developments 2012' http://www.snh.gov.uk/planning-and-development/renewable-energy/onshore-wind/general-advice-and-information/

Natural Heritage

SNH Guidance on assessing windfarm impacts on birds can be found at http://www.snh.gov.uk/planning-and-development/renewable-energy/onshore-wind/windfarm-impacts-on-birds-guidance/

Further guidance on otters can be found at http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/which-and-how/mammals/otter-protection/

Assessing Significance of Impacts from Onshore Windfarms Outwith Designated Areas - www.snh.gov.uk/docs/C206958.pdf.

Further information can be found in SNH's Planning for development: what to consider and include in Habitat Management Plans - http://www.snh.gov.uk/docs/B1159444.pdf

Further information on carbon calculation can be found on the Scottish Government website at: http://www.scotland.gov.uk/Topics/Business-Industry/Energy/Energy-sources/19185/17852-1/CSavings

Further information on Peat can be found at:

- SNH, SEPA, Scottish Government and The James Hutton Institute (2011) Developments on Peatland: Site Surveys and Best Practice www.scotland.gov.uk/Resource/Doc/917/0120462.pdf SEPA guidance on Surplus Peat Management: www.sepa.org.uk/planning/sustainable_waste_management/surplus_peat_management.aspx including links to Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and Minimisation of Waste and Regulatory Position Statement – Developments on Peat."
- FCS and SNH (2010) *Floating Roads on Peat* www.roadex.org/uploads/publicat*ions/Seminars/Scotland/*FCE:SNH%20Floating%20Roads%20on%20Peat%20report.pdf

Carbon Calculator

http://www.scotland.gov.uk/Topics/Business-Industry/Energy/Energy-sources/19185/17852-1/CSavings.

Access

All proposals for windfarm development must comply with the access requirements as set out in the Shetland Islands Council Roads Department guidance document - http://www.shetland.gov.uk/roads/drainage.asp.

Noise Impacts

Small Wind Turbine Noise Procedure for Shetland

Shetland Islands Council Environmental Health Service is the statutory regulator of noise nuisance and its advice can be found here: http://www.shetland.gov.uk/environmental_health/NoiseNuisance.asp

Water Resources

For drainage issues associated with public roads and roads drainage issues please refer to Shetland Islands Councils Roads Access Design Guide.

SEPA and SNH hold some information on wetlands (including GWDTE) within the Scottish Wetland Inventory Wetlands and GWDTEs will also be present outwith designated sites. A site specific survey is required for all developments where wetland habitats are present. These can be identified using the procedure in SEPA's planning Guidance on windfarm developments (paragraph 3.2) https://www.sepa.org.uk/media/136117/planning-guidance-on-on-shore-windfarms-developments.pdf.

Please refer to SEPA Planning Guidance (LUPS-GU31) on assessing the impacts of development proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems http://www.sepa.org.uk/media/143868/lupsgu31_planning_guidance_on_groundwater_abstractions.pdf. Appendix 3 of this guidance note provides advice on the minimum mapping information that should be submitted in support of a planning submission, Appendix 4 contains a list of NVC communities that may be dependent on groundwater. This guidance note also contains further information on carrying out a detailed risk assessment

Decommissioning

Siting and Designing windfarms in the landscape http://www.snh.gov.uk/docs/A337202.pdf

LUPS GU4 Planning guidance on on-shore windfarm developments, available at: http://www.sepa.org.uk/media/136117/planning-guidance-on-on-shore-windfarms-developments.pdf

Further information on decommissioning can be found at the Pollution prevention and environmental management section of SEPA's website: http://www.sepa.org.uk/planning/construction_and_pollution.aspx

SEPA has produced the following useful guidance documents, which should be considered in relation to wind energy developments. The following documents can be accessed at http://www.sepa.org.uk/planning.aspx

- SEPA Position statement on Waste
- SEPA planning Guidance on windfarm developments
- SEPA's (interim) Position Statement on Planning, Energy and Climate Change

- SEPA, SNH, FCS and Scottish Renewables: Good Practice During Windfarm Construction

Historic Environment

Should there be known archaeology or a risk of archaeology in the area of your proposed site contact the Shetland Archaeologist at the Shetland Amenity Trust for further information.

Managing Change in the Historic Environment: Micro-renewables
at https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=80b7c0a0-584b-4625-b1fd-a60b009c2549
Micro-renewables in the Historic Environment: Short Guide
at https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=3b8ace10-5147-4002-8ed3-a591010222de