



Natural England's Impact Risk Zones for Sites of Special Scientific Interest

(For use by Local Planning Authorities to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites and determine when to consult Natural England)

User Guidance

- Version:** v4.1
- Issue Date:** 7 March 2023
- Purpose:** To provide guidance on the interpretation and use of the ***Impact Risk Zones for Sites of Special Scientific Interest*** GIS dataset available to download from the [Natural England Open Data Geoportal](#) and the [Defra Data Services Platform](#) and to use online on the [Magic website](#)
- Enquiries:** For further information please email the Natural England Impact Risk Zones mailbox: neirzs@naturalengland.org.uk

Impact Risk Zones for Sites of Special Scientific Interest

Purpose of the Impact Risk Zones for SSSIs

As the government's conservation advisory body, Natural England has a number of statutory duties and general responsibilities in relation to SSSIs. These include providing advice to local planning authorities (LPAs) and developers on the potential impacts of development on SSSIs to ensure their protection and enhancement in line with the policies in the NPPF and development plans.

The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. The IRZs also cover the interest features and sensitivities of European sites, which are underpinned by the SSSI designation and "Compensation Sites", which have been secured as compensation for impacts on European /Ramsar sites.

Local planning authorities (LPAs) have a duty to consult Natural England before granting planning permission on any development that is in or likely to affect a SSSI. The SSSI IRZs can be used by LPAs to consider whether a proposed development is likely to affect a SSSI and determine whether they will need to consult Natural England to seek advice on the nature of any potential SSSI impacts and how they might be avoided or mitigated. The IRZs do not alter or remove the requirements to consult Natural England on other natural environment impacts or other types of development proposal under the Town and Country Planning (Development Management Procedure) (England) Order 2015 and other statutory requirements - see the gov.uk website for further information.

The SSSI IRZs can be used by developers, consultants and members of the public, who are preparing to submit a planning application. They will help them to consider whether a proposed development is likely to affect a SSSI and choose whether to seek pre-application advice from Natural England. This will allow any potential impacts to be taken into account within the planning application and so minimise the risk of delays at the formal planning stage. Further information on Natural England's pre-application Discretionary Advice Service (DAS) is available on the gov.uk website.

Access to the data and further information

The SSSI IRZ dataset can be downloaded in various formats or accessed via API from the [Natural England Open Data Geoportal](#) and the [Defra Data Services Platform](#) and used in combination with other spatial data in the users GIS. It is also available to use online on [Magic](#). We have set up an Impact Risk Zones team on Microsoft (MS) Teams, a secure online collaboration and file sharing platform, to allow us to share data, news and information about the SSSI IRZs with colleagues within and outside of Natural England. Team members and guests will receive a notification when an update has taken place and there is an area to post questions and answers.

If you would like to join the IRZs team on MS Teams, or require further information and/or advice on the SSSI IRZs please email the NE Impact Risk Zones mailbox: neirzs@naturalengland.org.uk.

Update of the SSSI Impact Risk Zone Dataset

The SSSI IRZ Dataset is updated regularly to reflect improvements in our evidence and understanding of the sensitivities and potential risks to SSSIs. Updates are undertaken every two months and users should ensure that they are always using the most up to date version of the dataset.

Step by step guide to using the SSSI IRZs Dataset

Switch on the SSSI IRZs layer, zoom to the location of the proposed development and interrogate the SSSI IRZs layer at that location.

If using the SSSI IRZs on Magic, set the map scale to 1:10,000 and use the Identify tool to click on the map at the location of the proposed development. To define an area of interest, use the Site Check tool.

The area of a proposed development may coincide with more than one SSSI IRZ and care should be taken to ensure all IRZs are checked and all potential risks are identified.



The results table will show a list of development categories in the left hand margin with a corresponding development description in the right hand margin. In some areas there is also a Note.



Does the nature and scale of the proposed development match one or more of the development descriptions listed in the right hand margin of the results table alongside a development category?

YES

NO

The proposed development has the potential to impact upon a SSSI.

The Local Planning Authority should consult Natural England for advice on how impacts might be avoided or mitigated.

Consultations should be sent to consultations@naturalengland.org.uk

If you are a developer, consultant or member of the public preparing to submit a planning application, Natural England can be consulted for pre-application advice on how impacts might be avoided or mitigated.

See the gov.uk website for further information on our pre-application discretionary advice service (DAS).

Is there a Note that contains advice relevant to the proposed development?

YES

NO

The proposed development has the potential to impact upon a SSSI.

The Note provides additional advice that should be followed.

The proposed development is unlikely to pose a risk to SSSIs.

The Local Planning Authority does not normally need to consult Natural England on this proposal regarding likely impacts on SSSIs (but see **Important Notes** on the following page).

Important Notes

1. The SSSI IRZs do not currently cover potential risks from coastal schemes such as coastal defences, cliff stabilisation, cross beach structures, harbour and marina development. Natural England should be consulted on any such development which is likely to affect a coastal SSSI.
2. The SSSI IRZs seek to guide consultations relating to the likely impacts of development on SSSIs under Schedule 4 (w) of the Town and Country Planning (Development Management Procedure) (England) Order 2015 and section 281 of the Wildlife and Countryside Act 1981 (as amended). They do not alter or remove the requirements to consult Natural England on other natural environment impacts or other types of development proposal under the Town and Country Planning (Development Management Procedure) (England) Order 2015 and other statutory requirements.
3. It is important to note that the SSSI IRZs only indicate Natural England's assessment of likely risk to the notified features of SSSIs. Where they indicate such a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment.

Questions and Answers

Purpose and Use

What are Natural England's SSSI IRZs?

The SSSI IRZs are a GIS tool/dataset. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

How does Natural England use the SSSI IRZs?

Natural England is a statutory consultee on development proposals that might impact on SSSIs. When a consultation is received, the SSSI IRZs are used to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals. This allows Natural England to quickly determine which consultations are unlikely to pose risks and which require more detailed consideration.

How can Local Planning authorities use the SSSI IRZs?

Local Planning Authorities (LPAs) have a duty to consult Natural England before granting planning permission on any development that is in or likely to affect a SSSI. The SSSI IRZs can be used by LPAs to consider whether a proposed development is likely to affect a SSSI and determine whether they will need to consult Natural England to seek advice on the nature of any potential SSSI impacts and how they might be avoided or mitigated. For a step-by-step guide to using the SSSI IRZs see the flow chart in [Appendix 1](#).

Do the SSSI IRZs reflect the interest features and sensitivities of European sites?

European sites are underpinned by the SSSI designation and their interest features and sensitivities are covered by the SSSI IRZs. Where the notified features of the European site and SSSI are different, the SSSI IRZs have been set so that they reflect both. The SSSI IRZs can therefore be used as part of a Habitats Regulations Assessment (HRA) to help determine whether there are likely to be significant effects from a particular development on the interest features of the European site. The SSSI IRZs also cover "Compensation Sites" which have been secured as compensation for impacts on European/Ramsar sites. Each Compensation Site has been given the same IRZs as the European/Ramsar site(s) it is providing compensation for.

Do the IRZs alter the arrangements to consult Natural England?

The IRZs seek to guide consultations relating to the likely impacts of development on SSSIs under Schedule 4 (w) of the Town and Country Planning (Development Management Procedure) (England) Order 2015 and section 28I of the Wildlife and Countryside Act 1981 (as amended). They do not alter or remove the requirements to consult Natural England on other natural environment impacts or other types of development proposal under the Town and Country Planning (Development Management Procedure) (England) Order 2015 and other statutory requirements.

For further information on when to consult Natural England on planning proposals see the gov.uk website.

All consultations should be sent to consultations@naturalengland.org.uk.

How can developers, consultants and members of the public use the SSSI IRZs?

The SSSI IRZs can be used by developers, consultants or members of the public, who are preparing to submit a planning application. They will help them to consider whether a proposed development is likely to affect a SSSI and choose whether to seek pre-application advice from Natural England. This will allow any potential impacts to be taken into account within the planning application and so minimise the risk of delays at the formal planning stage.

For a step-by-step guide to using the SSSI IRZs see the flow chart in [Appendix 1](#).

Further information on Natural England's pre-application Discretionary Advice Service (DAS) is available on the gov.uk website.

What types of development are covered by the SSSI IRZs?

Potential impacts from most types of development requiring planning permission are covered by the SSSI IRZs. One important exception is any development proposal with the potential to impact on coastal processes. The SSSI IRZs do not currently cover potential risks from coastal schemes such as coastal defences, cliff stabilisation, cross beach structures, harbour and marina development. Natural England should be consulted on any coastal scheme which is likely to affect a coastal SSSI.

What does it mean when a development is indicated by the SSSI IRZs?

If the development descriptions in the SSSI IRZs at a chosen location match the nature and scale of a proposed development, this indicates the potential for impact and means that more detailed consideration is required. In this case Natural England should be consulted for advice on any potential impacts on SSSIs and how these might be avoided or mitigated.

What does it mean when there is advice in the Notes field(s)?

A Note in the SSSI IRZs at a chosen location provides additional advice for particular development types that should be followed. It does not remove the requirement to consult Natural England where other SSSI IRZs indicate consultation is necessary.

What does it mean when a development is not indicated by the SSSI IRZs?

If the development descriptions in the SSSI IRZs at a chosen location do not match the nature and scale of a proposed development and there is no relevant advice in the Notes fields, this signifies that the development, as proposed, is unlikely to pose a significant risk to the notified features of any SSSI(s) and normally no further consultation with Natural England regarding likely effects on SSSIs is required (see *Coastal Schemes* exception above).

When using the SSSI IRZs and interpreting the information they provide, it is important to note that they only indicate Natural England's assessment of likely risk to the notified features of SSSIs. Where they indicate such a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment.

Maintenance and Development

How often is the SSSI IRZ dataset updated?

A new version of the dataset is uploaded onto the [Natural England Open Data Geoportal](#), [Defra Data Services Platform](#) and [Magic](#) every two months.

Do the SSSI IRZs reflect the site specific sensitivities of each SSSI?

Yes. The SSSI IRZs for each SSSI have been drawn to reflect the specific features for which the site is notified. Natural England's local team staff have reviewed the SSSI IRZs and where necessary the IRZs have been varied to reflect locally specific site sensitivities. Ensuring that the SSSI IRZs continue to reflect our understanding of locally specific site sensitivities is an ongoing process which will depend on the input of Natural England's area teams and our local partners.

Do the SSSI IRZs take into account local circumstances?

Yes. Natural England's local team staff have reviewed the SSSI IRZs and where necessary the IRZs have been varied to reflect specific local circumstances such as known water quality issues or particular development pressures. Ensuring that the SSSI IRZs continue to reflect local circumstances is an ongoing process which will depend on the input of Natural England's area teams and our local partners.

How are the SSSI IRZs kept up to date with emerging evidence and improvements of our understanding of SSSI sensitivities?

Natural England's specialists continue to review the evidence and advise the IRZ project on changes required to ensure the IRZs reflect our current understanding of SSSI sensitivities. We also welcome input from Natural England's area teams and their local partners, and encourage them to contribute to the update and development of SSSI IRZs in their area.

What can I do if I think the IRZs of a particular SSSI do not accurately reflect the sensitivities of the site?

Ensuring that the SSSI IRZs continue to reflect our current understanding of specific site sensitivities is an ongoing process which will depend on the input of Natural England's specialists, area teams and our local partners. If you think the IRZs for one or more SSSIs need to be reviewed and/or updated you should either speak to the area team IRZ lead or contact the IRZ project team directly through the Impact Risk Zones mailbox: neirzs@naturalengland.org.uk.

What can I do if I think that the potential impacts of a particular type of development are not adequately reflected in the SSSI IRZs?

Ensuring that the SSSI IRZs continue to reflect our current understanding of the potential risks posed to SSSIs by different types of development is an ongoing process which will depend on the input of Natural England's specialists, area teams and our local partners. If you think there is a significant risk which is not reflected in the SSSI IRZs you should contact the IRZ project team directly through the Impact Risk Zones mailbox: neirzs@naturalengland.org.uk.

Attribute Data for SSSI Impact Risk Zones

The table below illustrates the structure of the attribute data table and sets out the development categories and descriptions used in the dataset. It also explains why Natural England is concerned about the different types of development reflected in the SSSI IRZs.

Development Category	GIS Attribute Field Name	<i>Example Description:</i> the nature and scale of development proposals at the given location which have the potential to impact on an SSSI. Where a proposal meets the description consult NE for further advice.	Why is Natural England concerned about this type of development?
All Consultations	AllConsult	ALL PLANNING APPLICATIONS - Text may be qualified to exclude householder applications or applications in existing settlements/urban areas that do not impact on greenspace, farmland or semi natural habitats or landscape features such as trees, hedges, streams, rural buildings/structures.	All developments within or in very close proximity to SSSIs present a range of risks of direct impacts. Extending further from the sites, potential impacts on Great Crested Newts (GCN), bats and birds are also reflected in this category, as they travel several kilometres from SSSIs to breed, roost, forage etc. Proposed developments outside or on the edge of existing settlements/urban areas can result in increased light pollution, loss or fragmentation of greenspace and loss or disturbance of functional habitat, all of which can affect these species.
Infrastructure	Infrastruc	Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals - Description may vary to include/exclude one or all of the above.	Pipelines, underground cables, pylons and overhead cables can create a collision risk for birds and/or loss or disturbance of functional habitat. The footprint of the construction site can also affect local water supplies, which the SSSIs depend on. An increase in road traffic because of new or extended roads can cause local air pollution impacts and significant transport infrastructure projects can have impacts on water supply mechanisms, especially by introducing new drainage. New or extended aviation proposals can cause disturbance to birds, as well as collision with birds. Increased air traffic also has the potential for significant air pollution.
Wind & Solar Energy	WindSolar	Solar schemes with a footprint >0.5ha, all wind turbines - Description may vary to include/exclude one of the above.	Wind turbines can cause collision impacts and disturbance for birds. Solar schemes can impact on functional land outside SSSIs which birds depend on for feeding.
Minerals, Oil and Gas	MinOilGas	Planning applications for quarries – including new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction - Text may be qualified to exclude applications in existing settlements/urban areas that do not impact on greenspace, farmland or semi natural habitats.	These types of development often involve water abstraction, which can affect local water supplies that designated sites depend on. Waste drilling fluids that are returned to the surface may contain gases and other contaminants, which may be treated and discharged either to the ground to filter away from the site, or into a nearby watercourse. If the treated water flows towards a SSSI, it has the potential to impact on water quality sensitive features. Site activities and spoil generation can create dust or particles, which can physically smother leaves or be toxic to habitats and species on SSSIs. Flaring may give rise to local elevated levels of particulates, local ozone formation and NOx emissions. The development footprint and site activities can result in loss or fragmentation of greenspace and loss or disturbance to functional habitat, which birds depend on for feeding. Vibration from drilling can affect geological features.
Rural Non Residential	RuralNonRe	Any non-residential development outside of existing urban areas where net additional gross internal floorspace following development is 30m² or more - Description may vary to specify different area thresholds.	Rural non-residential developments can impact on water quality, cause disturbance to birds and impact on functional land outside SSSIs, which they depend on for feeding.
Residential	Residentia	Any residential developments with a total net gain in residential units - Description may vary to specify thresholds for numbers of residential units.	New residential developments can impact water supply mechanisms, water quality and functional land outside SSSIs, which birds depend on for feeding. New houses also mean more people, which can increase disturbance to birds, and put more recreational pressure on sensitive sites.
Rural Residential	RuralResid	Any residential developments outside of existing settlements/urban areas with a total net gain in residential units - Description may vary to specify thresholds for numbers of residential units.	Rural housing developments can impact on catchments of water dependent and water quality sensitive SSSIs and on functional land outside site boundaries which SSSI birds depend on for feeding. New houses also mean more people, which can increase disturbance to birds, and put more recreational pressure on sensitive sites.
Air Pollution	AirPolluti	Any development that could cause AIR POLLUTION or DUST either in its construction or operation (incl: industrial/commercial processes and agricultural developments such as livestock & poultry units, manure/slurry stores) - Description may vary to include/exclude one or all of the above and to specify different area/weight thresholds.	Emissions from many different types of development can cause air pollution and/or dust affecting the habitats and species on SSSIs. Dust or particles can fall onto plants and physically smother the leaves, affecting photosynthesis, respiration, transpiration and leaf temperature. There may also be toxicity issues (caused by heavy metals particles) and potential changes in pH (particularly if the dust is alkaline (e.g. cement dust)). Lichens can be directly affected by the dust (shading, chemical effects) or by changes in bark chemistry.
Combustion	Combustion	All general combustion processes. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion - Description may vary to specify thresholds for energy input.	Emissions from combustion can cause air pollution affecting the habitats and species on SSSIs. More than 500m away from a SSSI, only combustion processes over a certain minimum size are likely to have an impact. A very large project and could cause air pollution on SSSIs up to 10km away.
Waste	Waste	Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management - Description may vary to specify particular type of waste proposal.	Landfill and waste treatment can cause air pollution and affect local water supplies, which designated sites depend on. Landfill sites attract large numbers of gulls which can impact on birds (Predation). An MBWT plant can generate significant amounts of ammonia. At high concentrations ammonia is toxic to vegetation; it also deposits to ecosystems and causes nitrogen enrichment and acidification of soils and freshwaters.
Composting	Compost	Any composting proposal. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management - Description may vary to specify thresholds for throughput in tonnes.	Emissions of ammonia from composting units can make a significant contribution to nitrogen deposition near to a sensitive site and cause severe localised impacts on semi-natural habitats as well as contributing to regional nitrogen deposition. More than 500m away from a SSSI, the amount of material composted needs to be over a certain amount to be likely to have an impact.
Discharges	Discharge	Any discharge of water or liquid waste that is discharged to ground (i.e. to seep away) or to surface water, such as a beck or stream - Description may vary to specify volume thresholds for discharges or to include discharges to main sewer.	Most foul water is removed from a development site by a mains sewer. Where this is not the case, foul water is usually treated on site and then discharged either to ground to filter away from the site, or into a nearby watercourse. If the treated water flows towards a SSSI, it has the potential to impact on water quality sensitive features.
Water Supply	Water_Sply	Large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1000m² or any development needing its own water supply (eg remote rural housing) - Description may vary to include/exclude one of the above.	Large non-residential developments can have an impact on water supply mechanisms to SSSIs and rural housing developments, especially remote ones, can need their own water supply, such as an abstraction borehole or spring, which can affect water dependent SSSIs.
NOTES	NOTES_1	These fields will be populated where there is additional planning policy/guidance that planners/developers need to be aware of. It does not alter or remove the requirement to consult Natural England when other SSSI IRZs indicate consultation is necessary.	
	NOTES_2		