



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

(For Local Planning Authorities to determine if a proposed development is likely to affect a terrestrial Site of Special Scientific Interest and when to consult Natural England)

User Guidance

- Version:** v5.4
- Issue Date:** 02 April 2025
- Purpose:** To provide guidance on the interpretation and use of the *Impact Risk Zones for Sites of Special Scientific Interest*.
- Enquiries:** For further information please email the [Natural England Impact Risk Zones mailbox](#)

Impact Risk Zones for Sites of Special Scientific Interest

Purpose of the Impact Risk Zones for SSSIs

Natural England has a number of statutory duties and general responsibilities, as the government's conservation advisory body, in relation to Sites of Special Scientific Interest (SSSIs). This includes 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 local and national policy and legislation.

The Impact Risk Zones for SSSIs (SSSI IRZs) are a Geographical Information System (GIS) tool developed by Natural England to make a rapid initial assessment of the potential risks to terrestrial SSSIs posed by development proposals. They define zones around each SSSI which reflect the sensitivities of the features for which the site is notified and indicate the types of development proposal which could potentially have adverse impacts and need further consideration. In certain locations they also include Natural England's statutory advice for certain development types. The SSSI IRZs also cover the interest features and sensitivities of those European Sites (habitats sites) that are underpinned by a terrestrial SSSI designation and include a number of "Compensation Sites", which have been secured as compensation for impacts on European Sites (habitats sites).

LPAs have a duty to consult Natural England before granting planning permission on any development that is in or likely to affect a SSSI (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). LPAs can use the SSSI IRZs to determine if a proposed development is likely to affect a SSSI and when to consult Natural England to seek advice. Where the SSSI IRZs include Natural England's statutory advice or indicate a risk is unlikely, LPAs can use the SSSI IRZs to instantly generate a formal consultation response. The SSSI IRZs do not alter or remove any other statutory requirements to consult Natural England. [Local Planning Authorities Get Environmental Advice - GOV.UK \(www.gov.uk\)](http://www.gov.uk) provides further information on when Natural England must be consulted on development proposals including [Nationally Significant Infrastructure Projects - GOV.UK \(www.gov.uk\)](http://www.gov.uk) (NSIPs).

Developers, consultants and members of the public, who are preparing to submit a planning application, can use the SSSI IRZs to 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 considered within the planning application and so minimise the risk of delays at the formal planning stage. [Developers: get environmental advice on your planning proposals - GOV.UK \(www.gov.uk\)](http://www.gov.uk) provides further information on Natural England's pre-application Discretionary Advice Service (DAS).

Access to the Impact Risk Zones for SSSIs and further information

The SSSI IRZs are available to download in various formats and as a Web Map Service (WMS) with WMS standard GetFeatureInfo functionality from:

- [SSSI Impact Risk Zones \(England\) | SSSI Impact Risk Zones \(England\) | Natural England Open Data Geoportal \(arcgis.com\)](http://arcgis.com),
- [SSSI Impact Risk Zones \(England\) - data.gov.uk](http://data.gov.uk) and
- [Defra data services platform](http://defra.gov.uk).

They are also available on the government's interactive mapping website [MAGIC \(defra.gov.uk\)](http://defra.gov.uk).

Natural England maintains an IRZs Team on Microsoft (MS) Teams, a secure online collaboration and file sharing platform, which allows us to share data, news and information

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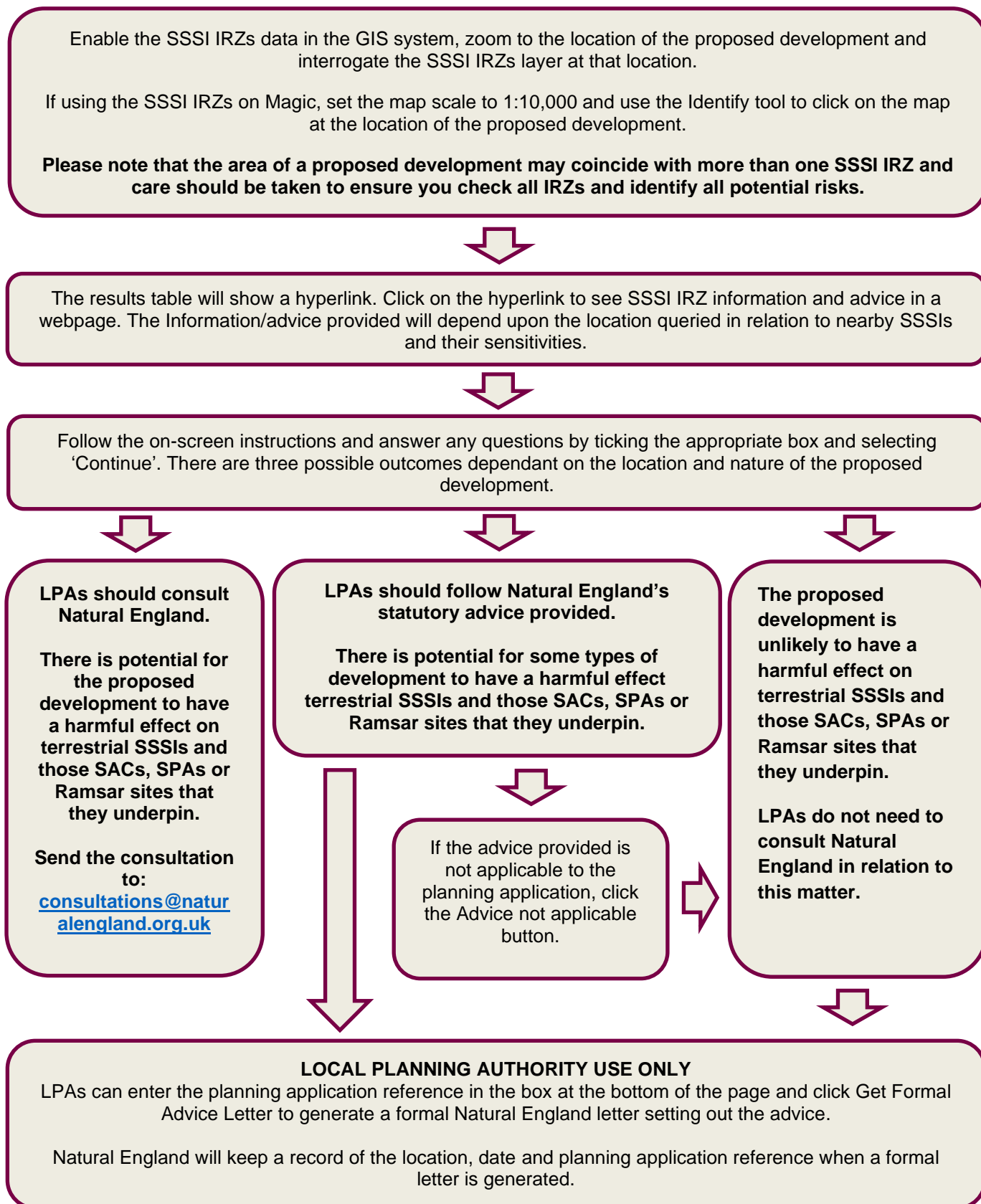
about the SSSI IRZs with colleagues within and outside of Natural England. Team members and guests receive a notification when an update to the SSSI IRZs has taken place and there is an area to post questions and answers.

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 [Natural England Impact Risk Zones mailbox](#).

Update of the SSSI Impact Risk Zone

The SSSI IRZs are 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. If users utilise the WMS functionality, then updates will be automatically reflected as they happen without the need to download any new data.

Step by step guide to using the SSSI IRZs



Please Note

The SSSI IRZs seek to guide consultations relating to the likely impacts of development on terrestrial 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. They do not alter or remove any other statutory requirements to consult Natural England.

The SSSI IRZs only indicate Natural England's assessment of likely risk to the notified features of terrestrial SSSIs and those SACs, SPAs or Ramsar sites that they underpin. There are other sites designated for nature conservation in the coastal and marine environment that are not underpinned by terrestrial SSSIs. This includes SPAs, SACs, Ramsar sites and Marine Conservation Zones (MCZs). You should consult Natural England on any coastal or marine proposal that might impact those sites.

Where the SSSI IRZs indicate a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment and there may be a requirement to consult Natural England as a statutory consultee on other matters.

[Local Planning Authorities Get Environmental Advice - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/guidance/local-planning-authorities-get-environmental-advice) provides further information on when Natural England must be consulted on development proposals including [Nationally Significant Infrastructure Projects - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/guidance/nationally-significant-infrastructure-projects) (NSIPs).

Questions and Answers

Purpose and Use

What are Natural England's SSSI IRZs?

The SSSI IRZs are a GIS tool. They define zones around each SSSI which reflect the sensitivities of the features for which the site is notified and indicate the types of development proposal which could potentially have adverse impacts and need further consideration. In certain locations they also include Natural England's statutory advice for certain development types.

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, Natural England uses the SSSI IRZs to make a rapid initial assessment of the potential risks to terrestrial 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 (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). LPAs can use the SSSI IRZs to determine if a proposed development is likely to affect a SSSI and when to consult Natural England to seek advice. Where the SSSI IRZs include Natural England's statutory advice or indicate a risk is unlikely, LPAs can use the SSSI IRZs to instantly generate a formal consultation response. 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 (habitats sites)?

The SSSI IRZs cover the interest features and sensitivities of those European Sites (habitats sites) that are underpinned by the SSSI designation. Where the notified features of the European Site (habitats site) and SSSI are different, the SSSI IRZs are set to reflect both. The SSSI IRZs can therefore be used as part of a Habitats Regulations Assessment (HRA) to screen out likely significant effects from a particular development on the interest features of the European Site (habitats site). The SSSI IRZs also include some "Compensation Sites" which have been secured as compensation for impacts on European Sites (habitats sites). Each Compensation Site has the same IRZs as the European Site(s) (habitats site(s)) it is providing compensation for.

Do the IRZs alter the arrangements to consult Natural England?

The SSSI IRZs seek to guide consultations relating to the likely impacts of development on terrestrial 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. They do not alter or remove any other statutory requirements to consult Natural England.

The SSSI IRZs only indicate Natural England's assessment of likely risk to the notified features of terrestrial SSSIs and those SACs, SPAs or Ramsar sites that they underpin. There are other sites designated for nature conservation in the coastal and marine environment that are not underpinned by terrestrial SSSIs. This includes SPAs, SACs, Ramsar sites and Marine

Conservation Zones (MCZs). You should consult Natural England on any coastal or marine proposal that might impact those sites.

Where the SSSI IRZs indicate a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment and there may be a requirement to consult Natural England as a statutory consultee on other matters.

[Local Planning Authorities Get Environmental Advice - GOV.UK \(www.gov.uk\)](http://www.gov.uk) provides further information on when Natural England must be consulted on development proposals including [Nationally Significant Infrastructure Projects - GOV.UK \(www.gov.uk\)](http://www.gov.uk) (NSIPs).

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

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

Developers, consultants or members of the public, who are preparing to submit a planning application, can use the SSSI IRZs to 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 considered 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](#).

[Developers: get environmental advice on your planning proposals - GOV.UK \(www.gov.uk\)](http://www.gov.uk) provides further information on Natural England's pre-application Discretionary Advice Service (DAS).

What types of development are covered by the SSSI IRZs?

The SSSI IRZs cover the potential impacts from most types of development requiring planning permission. 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 nature conservation site in the coastal or marine environment.

What does it mean when the SSSI IRZs indicate consultation with Natural England is required?

Where the SSSI IRZs indicate that consultation with Natural England is required, this means that there is the potential for the proposed development to affect terrestrial SSSIs and those SACs, SPAs and Ramsar sites that they underpin and further consideration by a Natural England adviser is required. In this case Natural England should be consulted by emailing consultations@naturalengland.org.uk for advice on the potential impacts and how these might be avoided or mitigated.

What does it mean when the SSSI IRZs include Natural England's statutory advice?

In certain areas the SSSI IRZs include Natural England's statutory advice on the potential impacts to terrestrial SSSIs and those SACs, SPAs and Ramsar sites they underpin posed by certain development types. LPAs should follow this statutory advice.

Please note that the SSSI IRZs only include Natural England's statutory advice in relation to the likely effects of a proposed development on terrestrial SSSIs and those SACs, SPAs and Ramsar sites that they underpin. Natural England may provide additional advice where a proposed development affects other protected sites or landscapes or there are other statutory requirements to consult Natural England.

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 SSSI 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 SSSI 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 SSSI IRZs for one or more SSSIs need to be reviewed and/or updated you should either speak to a local area team adviser or contact the IRZ project team directly through the [Natural England Impact Risk Zones mailbox](#).

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 [Natural England Impact Risk Zones mailbox](#).

Proposed development types within SSSI Impact Risk Zones

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

Development Category	Example Description: 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	All Planning applications (except householder applications) where the proposed development is outside or extends outside existing settlements/urban areas and will increase lighting levels or affect greenspace, farmland, semi natural habitats, trees/woodland, waterbodies, rural buildings/structures (manmade or natural) or linear landscape features such as hedgerows, streams and rivers through direct loss, fragmentation or change of use. - Description may vary to include/exclude one or all of the above.	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	Pipelines and underground cables, pylons and overhead cables (excluding upgrades and refurbishment of existing network). Any transport proposal including new or extended footways, cycleways, roads/car parks, railways and waterways (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. New transport proposals can cause disturbance to birds and impact on functional land outside SSSIs, which they depend on for feeding. An increase in road traffic because of new or extended roads/car parks 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	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	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	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	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	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	Any development that could cause AIR POLLUTION or DUST either in its construction or operation (including: 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	All general combustion processes. Including: 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	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	Any composting proposal. Including: 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	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	Any development needing its own water supply eg remote rural housing that is not connected to a mains water supply, OR large infrastructure such as warehousing/industry where the total net additional gross internal floorspace following development is > 1,000m². - 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.