

FARM RISK MANAGEMENT POLICY FOR THE SITING OF OUTDOOR PIGS

Practical advice for outdoor pig operations

1. Introduction
2. Field risk assessment maps
3. Soil Management Planning
including an erosion risk map of the farm
4. Site protected target species and habitats with map
5. Conclusion
6. Appendices
 - i) Protected Habitat Areas
 - ii) SSSI Impact Zone Map
 - iii) Drinking Water Protection Zone & Ground Water Safeguard Zone
 - iv) Kings and the Waitrose Farming Partnership

Farmer Details

Name: **SteveHart**

Address:.....
.....
.....
.....
.....

Postcode.....

Site Details

Potential Sites	Approved	Postcode	Inspection Date	Review Date
M13/14	Yes	IP21 5JJ	29/11/17	01/06/18

Cross Compliance Hotline - 0333 0044 555

Email - mycompliancehelpline@frontierag.co.uk

**Kings and Waitrose Farming Partnership technical Helpline -
0800 587 9797**

1. INTRODUCTION

The aim of this report is to consider the suitability of a site for the outdoor siting of pigs with particular sensitivity towards:

- soil management
- risk of pollution and
- relevant biodiversity protection

FACTORS FOR CONSIDERATION:

General Management Considerations:

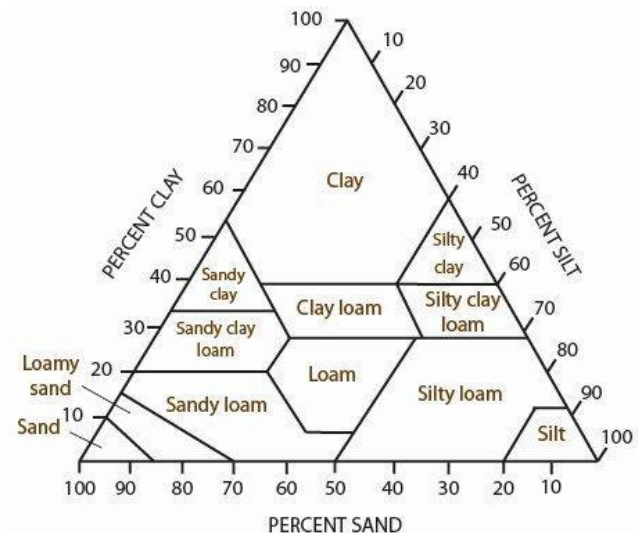
The choice of an appropriate site for outdoor pig units is essential to help mitigate the impacts on the wider environment.

Soils and Watercourses:

Livestock farming is a potential source of nutrient losses and outdoor pig farming is no exception to this. Any manure deposited by the pigs can result in very high levels of nitrate and phosphorus building up in the soil. Nitrate can readily leach into streams or into ground waters where it can cause pollution of drinking water sources. Phosphorus can also be lost by leaching and soil erosion and can cause environmental problems in streams and rivers. Under the [EC Nitrate Directive](#), [Nitrate Vulnerable Zones \(NVZs\)](#) must be designated by the Government in areas where nitrate levels in water exceed, or are likely to exceed, 50 mg/litre. Sandy and free draining soils, which are most suited to outdoor pig farming in other respects, are particularly susceptible to nitrate leaching. Phosphorus can upset the ecological balance in surface waters, causing eutrophication, the excessive growth of aquatic plants, notably algae. In extreme cases this can result in a serious lack of oxygen, leading to the death of fish and other aquatic creatures. Some algae also produce toxins which are dangerous to both humans and animals. Similarly, nitrate passing down rivers and into the sea can also upset the balance of marine and estuarine ecosystems.

Soil Type:

Knowing your soil type will help you place your pig unit in the most suitable location and aid any mitigation measures required to reduce the risk of erosion and pollution. Sandy soils can be susceptible to leaching, silty loam soils are at risk of capping and clay soils are impermeable and heavily waterlogged in periods of heavy rain fall.

**Topography:**

Steeply sloping fields should be avoided as these will greatly increase the chances of both soil erosion and runoff occurring. However, dependant of the site situation and other factors including water course location gentle slopes can be used as a drainage and collection tool. If sloping sites are selected, careful consideration should be given to the layout allowing for wide corridors, grassed areas and located across slopes to break surface flows.

Climate:

The climate and more specifically rainfall can have a big impact on the suitability of a pig unit. Ideally an outdoor pig unit should be sited in an area with less than 800 mm per year. Higher rainfall may be acceptable where the soil type is ideal and the risk of erosion is low. Conversely, where rainfall is very low, a more marginal soil type may be acceptable.

Ground Cover:

Siting the pig unit on land with suitable ground cover, typically a well established Rye grass sward. This offers a number of important benefits in terms of resource protection, reducing the risks from damage to the soil leading to erosion and run off. A ground cover should be well established before the pig unit is sited and rotating the unit once the sward is tired and worn.

Mitigation Considerations:

- Examine soils regularly to ensure compaction is not occurring.
- Manage stocking densities carefully to minimise poaching of the soils.
- Ensure good ground cover is maintained. Consider the establishment of a hard wearing ryegrass ley before the pigs move onto the site. (For tailored advice and a package for your specific site situation please contact your Kings representative)
- Ensure drinkers and feeders are located away from water courses.
- Establish and maintain vehicle access areas
- Site tracks across slopes to avoid creating channels for water to flow.
- Carry out both mechanical and cultural measures to reduce soil compaction.
- Introduce green cover crops to your unit rotation to reduce leaching and compaction.
- Introduce grass buffers strips and margins to slow and filtrate any water flow. This can be done in conjunction with the Waitrose Farming Partnership. (For tailored advice and a package for your specific site situation please contact your Kings representative)
- Do not keep problem locations within your pig unit rotation.

Cross Compliance Regulations:

To ensure you comply with the regulation of European subsidies Good Agricultural and Environment Conditions (GAEC) and Statutory Management Requirements (SMR) must be met. The following conditions will apply to all pig units;

GAEC 4: Minimum soil cover

GAEC 5: Minimum land management reflecting site specific conditions to limit erosion.

GAEC 6: Maintenance of soil organic Matter Level through appropriate practices, including ban of burning arable stubble, except for plant health reasons.

GAEC 7d: Sites of Special Scientific Interest

GAEC 7e: Ancient Monuments

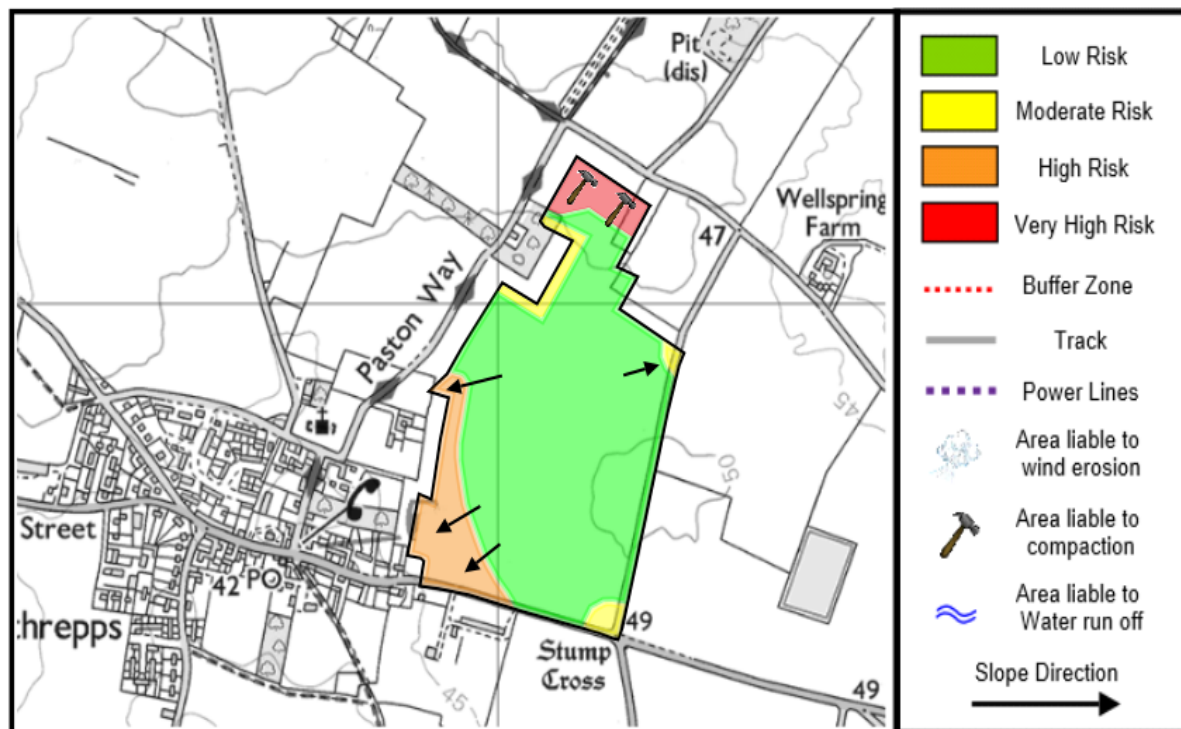
SMR 1: Reduce water pollution in Nitrate Vulnerable Zones (NVZ)

SMR3: Habitats and Species

Details of these conditions can be found at –

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/579836/Cross_Compliance_2017_rules_FINAL.pdf

2. Field Risk Assessment



Details of permanent measures to reduce the risk of soil erosion or deposition:

Limit vehicle access across moderate/high risk areas. Consider subsoiling the area of very high risk (post sugar beet clamp) pre pig site establishment. In order to protect the houses in the south west corner consider planting a rye grass sward that will be left unstocked. Site access should be considered and uneven/sloping gateways either avoided or modified.

There is deemed to be sufficient low risk areas to consider an outdoor pig enterprise subject to this report. To further minimise any risk consider the establishment of a hard wearing grass ley before the pigs move onto the site. With a 6m wild bird seed (Or equivalent) buffer strip around the entire site.

General comments on field soil erosion risk:

Most land is Silty Loam over sandy silt soil which provides reasonable drainage and moderate compaction issues. The silt could cause capping issues in a wet and hot summer and will therefore present a low to moderate risk. Wind and/or water erosion could be an issue to be watched.

General comments on whole farm soil run off risk:

Slopes on the field are gentle in gradient. Across the farm soil type varies in percentage of sand content. The drainability of the sand will reduce the run off risk. However, to further minimise the risk consider establishing buffer strips at the bottom of any slope to slow down any water flow and catch and filter any run off. This can be done in conjunction with the Waitrose Farming Partnership.

3. SOIL MANAGEMENT PLANNING

Field Name	Field Detail	Soil Review	Potential Risk and Recommendations
M13/14	Erosion: Low Run off: Low Watercourses: No Archaeology: No Drainage: No	A medium free draining sandy silt soil, signs of compaction along headlands and gateways and to the northern end (Where sugar beet has been clamped and loaded.) There is a gentle rolling slope across the field. At the south west corner of the field there is a slope towards the village/road. Towards the top of the western field boundary is a wood. At the far north eastern corner the gateway slopes towards the road. This field has historically been arable land. A road runs along the Western edge of the field.	<p>It is advisable to establish a ryegrass ley across the sites six months prior to pigs using the site to avoid bare soils and protect from diffuse erosion.</p> <p>·</p> <p>The area to the south west end of the field should be left un-stocked and a permanent grass buffer established to prevent potential run off. The area which has been used as a beet clamp should be sub soiled. An inspection hole should be dug to assess the correct depth of cap. Recommendation for sub soiling all current tramlines. Establish a 6m grass buffer strip (Wild bird seed/nectar mix or equivalent) along all field boundaries. Establish an additional buffer strip around the wooded area to reduce the risk of compaction which could lead to an area of standing water if not managed properly. Gateways should be monitored and if appropriate levelled/hard cored to retain soil structure/reduce pitting.</p> <p>There is a possibility that because of the high silt content in the soil this could lead to capping in a summer of wet followed by dry spells. Watch and consider cultivations to break cap if this occurs. in all situations and ring nose pigs to reduce rooting</p> <p>Undertake ring-nosing if rooting becomes excessive.</p>

4. SITE SPECIFIC TARGET SPECIES, BIODIVERSITY HABITATS and PROTECTION ZONES.

The site is in a region where many farmland birds are targeted species for protection.

Below is the BAP (Biodiversity Action Plan species list for Norfolk) which shows a diverse range of species of birds, flora, fauna, insects and animals.

Species of local importance: Norfolk Biodiversity Action Plan

- **Barbastelle Bat**
- **Water Vole**
- **Brown Hare**
- **Otter**
- **Brown Long-eared Bat**
- **Noctule Bat**
- **Barn Owl**
- **Common Ringed Plover**
- **Corn Bunting**
- **Gray Partridge**
- **Little Tern**
- **Reed bunting**
- **Skylark**
- **Spotted flycatcher**
- **Great-crested newt**
- **White-clawed crayfish**
- **Norfolk Hawker**

The habitat map shows that there are no areas within our site to avoid. However, consider establishing boundary habitats to support and protect the above as part of the Waitrose Farming Partnership

The map of SSSI's in the region shows two SSSI sites but neither is directly adjacent to our target site.

The WIYBY map shows our target site is not in a groundwater protection zone (GPZ) or a drinking water safeguard zone.

5. CONCLUSION

The site at Southrepps Hall has been fully assessed for any risk of causing damage to soils, water and biodiversity by placing a new pig production unit on site and a full management strategy created for mitigating these risk factors. Given the intensive nature of the proposed pig unit any areas highlighted within this plan have been detailed below and should be reviewed and updated on a regular basis.

Immediate Action:

- Subsoil beet clamp area (Marked red on map) and tramlines.
- Create 6m grass buffer strips (Wild bird seed or nectar mix) along all field boundaries. Cordon off a no-stocking zone in the field corner adjacent to the village (see high risk area on map) and establish a ryegrass sward or equivalent.
- Direct drill a Rye Grass mixed sward across all bare ground three to six months prior to the pig's arrival. Speak to Kings for a tailored site specific package.
- Create an additional margin along the woodland edge to minimise the impact on the woodland edge biodiversity.

Ongoing Action:

- Create small plots of wild bird seed and pollen and nectar mix to mitigate the impacts on the wildlife biodiversity within the area. This can be done in conjunction with the Waitrose Farming Partnership. Speak to Kings for advice.
- Manage traffic flow to the pig unit by establishing substantial access routes and minimising vehicular access.
- Although slopes are only slight, take care when siting roadways.
- Nose ringing can help prevent excessive rooting.

Annual/ Bi-Annual Action:

- Undertake a bi-annual plan of works to add a green cover crop to the site rotation to reduce the risk of any nutrient leaching and erosion of bare soil. This can be done in conjunction with the Waitrose Farming Partnership. Speak to Kings for advice.
- Manage any compaction of the site by undertaking bi-annual sub soiling of the site before it is returned to a crop rotation.
- Discuss with landlord about future cropping rotation to reduce soil compaction risk on a longer term basis.

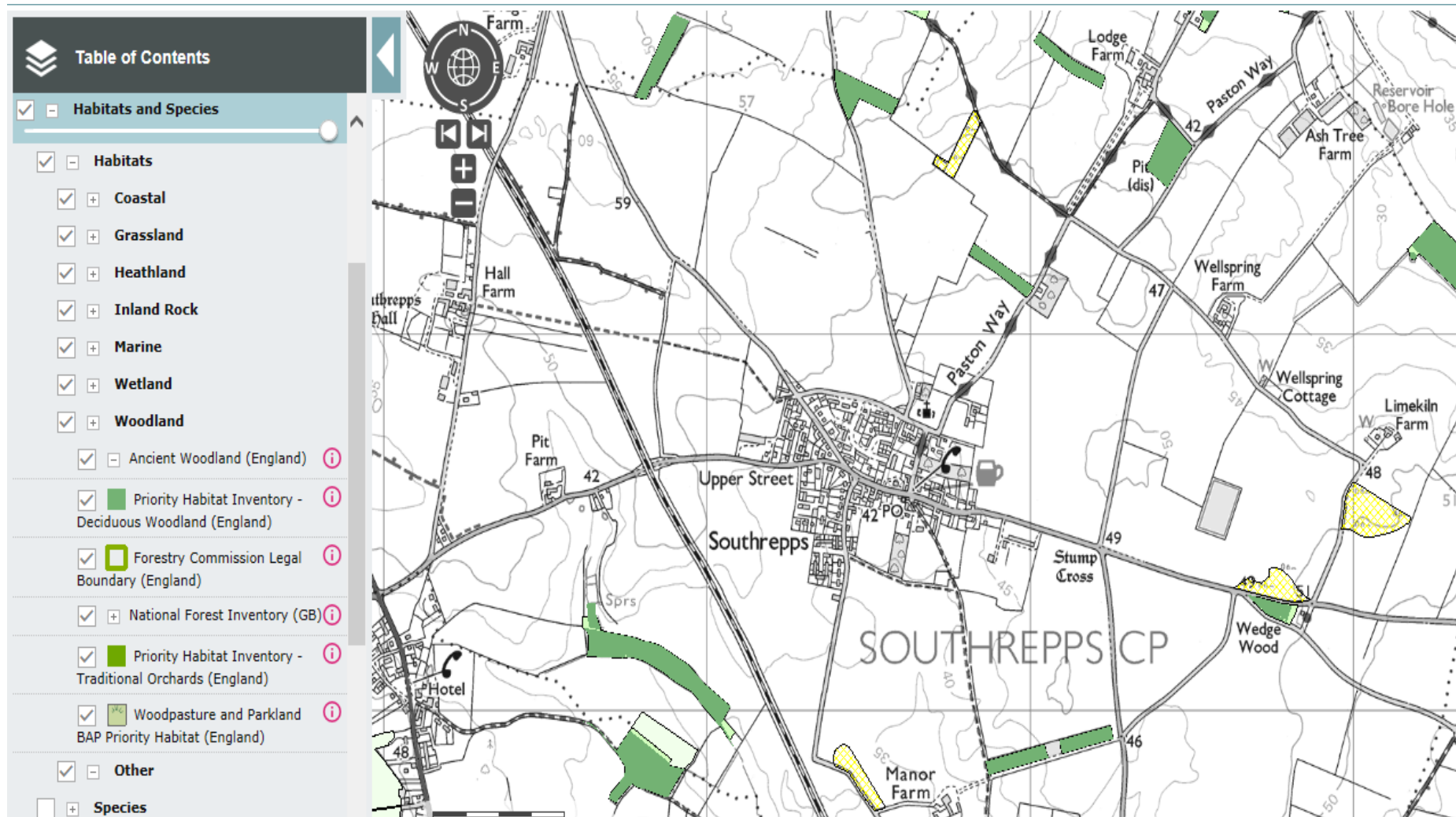
Overall the proposed site at Southrepps is classed as a medium -low risk for the placement of a pig production unit. If the recommendations are followed the risk can be reduced further with the site offering extra biodiversity benefits from the introduction of pollen and nectar mixture and wild bird seed plots.

For further help and advice please call the free technical helpline.

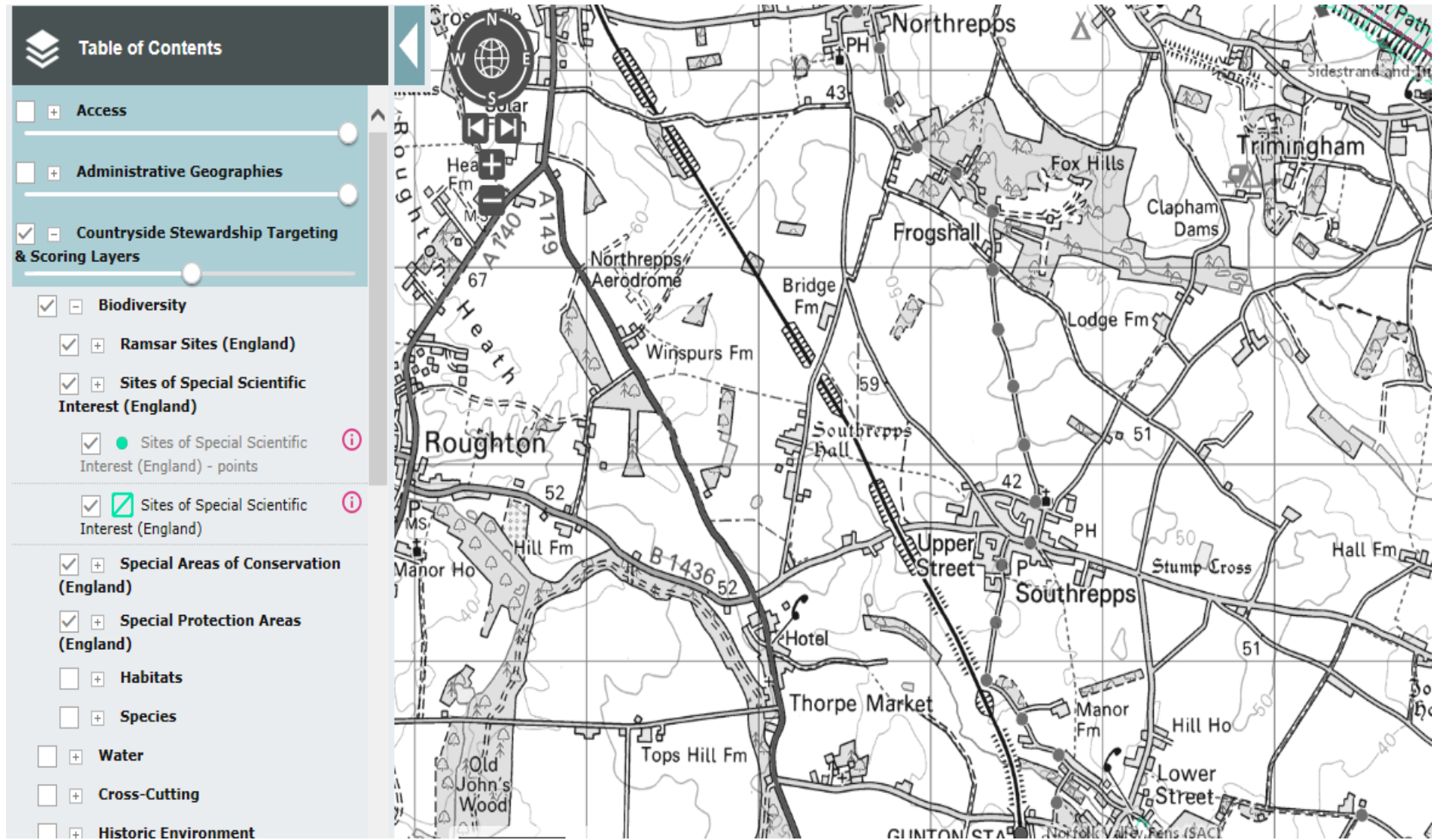
Cross Compliance advice: **0333 0044 555**

Kings & Waitrose Farming Partnership advice: **0800 587 9797**

Habitats



SSSI's





Enter a postcode or place name:

Southrepps, Norfolk

Go

Other topics for this area...

Drinking Water Safeguard Zones

Drinking Water Safeguard Zones

Map legend

- ☒ Surface Water Safeguard Zones
- Safeguard Zones
- ☒ Groundwater Safeguard Zones
- Safeguard Zones
- ☒ Other national environmental organisations
- Natural Resources Wales Area of responsibility
- Scottish Environment Protection Agency Area of responsibility

Southrepps, Norfolk at scale 1:20,000

Other maps Data search Text only version



© Environment Agency copyright and database rights 2017. © Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 100024198.

Contains Royal Mail data © Royal Mail copyright and database right 2017.

This service is designed to inform members of the public, in line with our [terms and conditions](#). For business or commercial use, please [contact us](#).

[http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=625500.0&y=336500.0&topic=drinkingwater&ep=map&scale=9&location=Southrepps, Norfolk&lang=_e&layerGroups=default&distance=&textonly=off#x=625579&y=336484&lg=2,3,10,&scale=9](http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=625500.0&y=336500.0&topic=drinkingwater&ep=map&scale=9&location=Southrepps,Norfolk&lang=_e&layerGroups=default&distance=&textonly=off#x=625579&y=336484&lg=2,3,10,&scale=9)



Post Unit Recovery Mixture

Containing Forage Rye, Oil Radish and Tillage Radish.

Key points:

- A green cover blend designed specifically for outdoor pig units to be planted prior to construction or after unit has been re-located although has wider uses (e.g. outdoor poultry runs).
- Can be sown in May/June or August/early September.
- This mix is designed to be used in a rotation that includes brassicas as the oil tillage radishes are not club root hosts.
- Delivers a wide range of rooting depths and activity helping to retain nutrients and improve soil structure.
- Opportunity to support and integrated soil borne pest management programme (e.g. PCN/BCN) – ask Kings for details.
- Designed for short term (max 6 months use).
- Can be used in an organic system as all elements re-cleaned only – derogation required

Seed Rate: 12kg/acre or 30kg/ha.

(Speak to a Kings Advisor to discuss your specific situation and package options)



- **Kings Pig Mix** – very quick growing and hard wearing mix specifically designed to be placed in pig units

20% Maxima Strong Creeping Red Fescue
15% Glenstal (T) Intermediate Perennial Rye Grass
28% Toddington Late Perennial Rye Grass
37% Polim (T) Late Perennial Rye Grass

Seed Rate: 14kg/ac 35kg/ha

Speak to kings for specific establishment and management

