



# Tiptree Neighbourhood Plan

# Habitat Regulations Assessment Report

February 2020

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#### Introduction

The Habitats Regulations Assessment of land use plans relates to Special Protection Areas (SPAs), Special Areas of Conservation (SAC) and Ramsar Sites. SPAs are sites classified in accordance with Article 4 of the EC Directive on the conservation of wild birds (79/409/EEC), more commonly known as the Birds Directive. They are classified for rare and vulnerable birds, listed in Annex I to the Birds Directive, and for regularly occurring migratory species. SACs are classified in accordance with EC Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). Article 3 of this Directive requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive. These sites are known as the Natura 2000 network. The NPPF defines them as Habitats sites. Ramsar Sites are designated under the International Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention, Iran 1971 and amended by the Paris Protocol 1992). Although Ramsar Sites are not protected in law by the Birds and Habitats Directives as a matter of policy government has decreed that unless otherwise specified procedures relating to SPAs and SACs will also apply to Ramsar Sites.

An appropriate assessment is a decision by the competent authority, in this case Colchester Borough Council, as to whether a proposed plan or project can be determined as not having adverse effects on the integrity of a designated Habitats site. The integrity of a site is defined as the "coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified" (Circular 06/05 paragraph 20). A fundamental element of the appropriate assessment is that the precautionary principle must be applied. In the Waddenzee judgment (ECJ Case C-127/02) the Habitats Court of Justice ruled that a plan or project may be authorised only if a competent authority has made certain that the plan or project will not have adverse effects on integrity.

Colchester Borough lies within the Zone of Influence of the following Habitats sites:

## Sites Designated under the Birds Directive:

- The Colne Estuary SPA (Mid Essex Coast Phase 2);
- Abberton Reservoir SPA;
- Blackwater Estuary SPA (Mid Essex Coast Phase 4);
- Dengie Estuary SPA (Mid Essex Coast Phase 1); and
- Stour and Orwell Estuaries SPA.

#### Sites designated under the Habitats Directive:

- Essex Estuaries SAC.

#### Sites designated under the Ramsar Convention:

- Colne Estuary;
- Abberton Reservoir;
- Blackwater Estuary;
- Dengie Estuary; and
- Stour and Orwell Estuaries.

#### Consultation

Natural England were consulted on a draft Habitat Regulations Assessment report in October 2019. Their comments are set out below.

#### "Tiptree Neighbourhood Plan

Natural England has previously commented on the Tiptree Neighbourhood plan (see reference 285100 dated 17th July 2019). Please also reference Natural England's comments on the emerging North Essex Joint Strategic Plan, particularly with reference to the Habitats Regulations Assessment and the Essex Coast Recreational Avoidance and Avoidance and Mitigation Strategy (Essex Coast RAMS).

#### **Habitats Regulations – Appropriate Assessment**

Natural England welcomes the Appropriate Assessment for the Tiptree Neighbourhood Plan and would agree with the broad conclusions in that an adverse effect on the integrity of the identified designated sites can be avoided through appropriate mitigation measures.

As a participating Local Planning Authority, the Essex RAMS is the strategic solution to mitigate for incombination impacts as a result of recreational disturbance on the Essex Coast designated sites, as a result of new residential development. The Essex RAMS and supporting evidence document identifies these issues and outlines the necessity for appropriate avoidance and mitigation measures; this includes a financial contribution towards mitigation measures within the coastal designated sites and suitable on-site green infrastructure. Natural England's advice on these matters can be found within our correspondence dated 16th August 2018 (our reference 244199).

In addition to these measures, the Appropriate Assessment suggests that where onsite Green Infrastructure measures are not/cannot be provided, in such cases an additional financial contribution will be sought towards the creation and improvement of an existing area at Inworth Grange Pits. As a Local Wildlife Site, the use of Inworth Grange Pits will need to be carefully considered to be further utilised as a 'SANG' as described in the Appropriate Assessment and therefore further detail is needed to ensure that the important flora and fauna of this area are maintained and improved. This should include a suitable site management plan to ensure an appropriate balance between the mitigation requirements and the conservation management of the existing species and associated diverse flora. We would advise that this is drafted in co-ordination with local environment bodies, such as the Essex Wildlife Trust.

Please also note that within the Appropriate Assessment the correct terminology should be utilised, such as the references to 'Likely significant effects' and 'adverse effects on integrity'.

Natural England therefore agrees that subject to an appropriate management plan and our comments on the Neighbourhood Plan Policies (as per our response reference 285100), Natural England has no further comment to make at this time on the Appropriate Assessment for the Tiptree Neighbourhood Plan."

## Pathways of impact and likely significant effects

#### Recreational disturbance (physical site disturbance and disturbance to birds)

#### Physical site disturbance

Physical disturbance relates to actual damage or degradation of habitat from direct human activities. Examples in the context of this assessment relate to damage to habitat from walking (trampling of vegetation) and the abrasion of intertidal or freshwater habitat from boat wash/anchoring. This issue is relevant to the habitats for which Habitats sites are designated (e.g. damage to saltmarsh communities on the Essex Estuaries SAC) or habitat which supports designated species (e.g. sand and gravel shores on the Colne Estuary SPA). Recreational users can damage habitat and cause severe disturbance to wildlife, particularly nesting birds in summer and feeding and roosting waterfowl in winter.

#### Disturbance to birds

Many human activities have the effect of degrading parts of estuarine ecosystems through for example, over-exploitation of their natural resources and excessive discharge of wastes and pollution. However, over a third of the population nationally live in towns and cities around estuaries and so careful consideration is needed to protect these environmentally important sites and manage the increasing recreation impacts associated with a growing population.

The primary source of non-physical disturbance relates to an increase in the number of visitors to Habitats sites due to increases in housing, an associated increase in demand for recreation and tourism facilities near to these sites.

The appropriate assessment of Colchester Borough's Section 2 Local Plan concluded that there are no likely significant effects arising from recreational disturbance at Abberton Reservoir and so Abberton Reservoir can be screened out of further assessment in terms of recreational disturbance. Abberton Reservoir is close to Tiptree (3.8km at the closest parts), however the increase of 600 dwellings in Tiptree is included in the Section 2 Local Plan.

Zones of Influence (ZoI) have been set as part of the Essex Coast Recreational disturbance Avoidance and Mitigation Strategy (RAMS). These are based on the best available evidence and have been endorsed by Natural England. The whole of Colchester Borough lies within the ZoI for various Essex coastal Habitats sites. This means that all residential development in Colchester is likely to lead to adverse effects on integrity in-combination.

#### Air quality

Air pollution is most likely to lead to likely significant effects where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected, either directly or indirectly, by deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen levels that can then affect plant health, productivity and species composition.

In terms of vehicular traffic, nitrogen oxides (NOx, i.e. NO and NO<sub>2</sub>) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NOx can cause eutrophication of soils and water.

Central government has developed a plan to improve air quality by reducing nitrogen dioxide levels in the UK (July 2017). The plan includes a range of measures that could be taken to mitigate the impact of action to improve air quality.

Colchester's Section 2 Local Plan includes a policy, which states that proposals will be supported that will not result in an unacceptable risk to public health, the environment or general amenity due to the potential of air pollution. Proposals for developments within designated Air Quality Management Areas (AQMAs) or where development within a nearby locality may impact on an AQMA are required, first, to be located in such a way as to reduce emissions overall, and secondly to reduce the direct impacts of those developments. Applicants will be required to prepare and submit a relevant assessment and permission will only be granted where the Council is satisfied that after selection of appropriate mitigation the development will not have an unacceptable significant impact on air quality, health and wellbeing.

Appropriate safeguards exist in a higher tier plan and air quality can therefore be screened out of further assessment.

#### Water quality

A growth in population resulting from an increase in housing will result in increased demands on the wastewater treatment system and may necessitate increased discharge consents and possibly even the establishment of new wastewater treatment works. Population expansion has the potential to increase nutrient loading to the Habitats sites, with the potential for adverse effects on integrity through eutrophication.

Tiptree Water Recycling Centre (WRC) serves Tiptree. The Water Cycle Study (December 2016) is a key evidence base document for the Colchester Local Plan and the HRA. The WCS calculated the volume of wastewater generated from growth in each WRC catchment and compared this to the treatment capacity at each WRC. Tiptree WRC has sufficient existing permitted headroom to accommodate all of the proposed level of growth in Tiptree (600 dwellings to be allocated in the neighbourhood plan). No infrastructure upgrades are required to deliver proposed growth. The WCS also concluded that additional dwellings, above the 600 allocated in the neighbourhood plan, could be connected before the headroom would be

exceeded. The WCS concluded that the proposed growth set out in the Tiptree neighbourhood plan would not deteriorate water quality and there is no barrier to delivering proposed levels of growth in Tiptree in terms of water quality.

Water quality can therefore be screened out of further assessment.

#### Water resources

Unsustainable rates of abstraction reduce water flows and may result in lower flow velocities, reduced depths and reduced flow continuity that may alter ecological status. This combined with higher concentrations of nutrients such as phosphate and nitrate may lead to algal blooms. More frequent periods of summer low rainfall are expected under current climate change prediction scenarios which may increase the environmental impact of flow problems. The largest demand for water comes from the public water supply and in order to reduce abstraction, abstractors have been tasked to use water more efficiently.

The Water Cycle Study concluded that, allowing for the planned resource management of Anglia Water Services Essex Resource Zone, Colchester Borough will have adequate water supply to cater for growth over the plan period.

Water resources can therefore be screened out of further assessment.

#### **Urbanisation (fly tipping and predation)**

The impact of urbanisation is closely linked to recreational pressure. Both result from an increase in population close to Habitats sites. Fly tipping can lead to likely significant effects through the introduction of invasive species. It is becoming a greater problem in rural areas.

Predation of ground nesting birds by cats is potentially a significant issue for Habitats sites. This is particularly relevant where new housing allocations are provided within 0.5 - 1km of a Habitats site, which is the distance recommended by the RSPB as being the typical range of influence for domestic cats. This issue in Colchester Borough relates to the predation of ground nesting species such as Little Tern and Ringed Plover.

Fly tipping is an issue 400 metres from a Habitats site and predation is an issue up to 1km from a site. Fly tipping and predation can both be screened out of further assessment as Tiptree is (at the closest point, as the crow flies) approximately 3.8km from Abberton Reservoir, 5.6km from the Blackwater Estuary, 12km from the Colne Estuary and 24km from the Stour and Orwell Estuaries.

#### Loss of offsite functional habitat

Fields in close proximity to Habitats sites often provide offsite functional habitat. The loss of these sites, whilst not part of the Habitats site, can lead to likely significant effects to the qualifying species of the SPA by reducing the extent of their habitat.

Whilst habitats located further from Habitats sites may be used by qualifying species these sites are unlikely to support numbers that would lead to a likely significant effect. Owing to the location of Tiptree, approximately 3.8km from Abberton Reservoir, 5.6km from the Blackwater Estuary, 12km from the Colne Estuary and 24km from the Stour and Orwell Estuaries, loss of offsite functional habitat can be screened out of further assessment.

## **Summary**

Recreational disturbance is the only issue that has not been screened out of further assessment in the consideration of pathways of impact and likely significant effects. The next sections (the appropriate assessment) consider likely significant effects from recreational disturbance alone and in-combination.

In reality the Neighbourhood Plan policies will combine to deliver the overall scale, location and form of development in Tiptree. However, to be thorough, Appendix 1 includes a screening matrix of all planning policies within the Tiptree Neighbourhood Plan.

# Appropriate assessment: likely significant effects alone

The map below shows details of all public and private open space within the settlement boundary of Tiptree. The green star shows amenity land, the red star play areas and the blue star indicates the former Tiptree United restricted access open space that has been swapped for a pitch alongside Colchester Road near Napier's Farm.

Public and private open space in Tiptree Birch Wood

The map shows that there are numerous areas of open space dispersed throughout Tiptree, providing good access to existing residents. The following green spaces are designated as common land or are managed by Tiptree Parish Council. Public Access is allowed:

- Grove Road Playing Field
- Grove Lake
- Park Lane Nature Reserve and amenity land
- Windmill Green
- Warrior's Rest

In addition, Tiptree Heath is owned by Mr Peter Wilkin in his capacity as Lord of the Manor. It is designated as Common Land and managed jointly by The Friends of Tiptree Heath and Essex Wildlife Trust under a farm Business Tenancy with support from Tiptree Parish Council. It is also a designated Site of Special Scientific Interest.

It is the stated intention of the Tiptree Neighbourhood Plan to continue to afford protection to the above areas of open space and wherever possible and desirable to negotiate public access to such areas.

Policy TIP15 of the neighbourhood plan states:

"POLICY TIP15: COUNTRYSIDE AND GREEN SPACES

A. Green spaces and access to the countryside should be protected and enhanced, particularly where this provides public access for the enjoyment of the community of Tiptree and its visitors. This includes designated Local Wildlife Sites which shall be protected from development.

B. To ensure the long term ownership and stewardship of new public green spaces created as a part of development, their ownership should be transferred either to Tiptree Parish Council or, if this is not possible, then to an appropriate alternative body."

Natural England has advised Essex local authorities that developments of over 100 dwellings are likely to require additional (to the Essex Coast RAMS tariff - see the next section), bespoke mitigation measures to mitigate likely significant effects alone. Such provisions can help minimise any predicted increase in recreational pressure to Habitats sites by containing the majority of recreation within and around the development site, away from Habitats sites. New Suitable Accessible Natural Greenspace (SANG) should include: high-quality, informal, semi-natural areas; a circular doa walking route of 2.7 km: dedicated 'dogs-off-lead' areas; signage/information leaflets to householders to promote these areas for recreation; dog waste bins; and a commitment to the long term maintenance and management of these provisions. Policy TIP15 and the inclusion of supporting text to policy TIP16 expanding on the open space characteristics that will be required will avoid/ mitigate likely significant effects alone.

Presently, applications of over 100 dwellings in Colchester borough are required to submit a shadow/advisory appropriate assessment report to enable the local planning authority and Natural England to assess likely significant effects alone and required avoidance/ mitigation measures (likely significant effects in-combination are avoided/mitigated by a committed to contribute towards the Essex Coast RAMS).

As an alternative to SANG provision onsite there is a possible opportunity for new development in Tiptree to financially contribute to the creation and maintenance/ management of a new area of open space for informal recreation, possibly at Inworth Grange Pits. This would be subject to successful negotiations with the current owners and the agreement of Natural England. It is generally recognised that there is a lack of wide open space in the Tiptree area and there is a strong call from the community to establish some kind of country park in the Tiptree area. To further develop this idea further work will be required to establish ownership and responsibility for the maintenance and management of the site; and the provision within the site of a circular dog walking route of 2.7 km, dedicated 'dogs-off-lead' areas, signage/information leaflets to householders to promote these areas for recreation and dog waste bins. A fair and proportionate financial contribution would also need to be agreed to fund the above features to ensure that the site is SANG. Contributions to this would address likely significant effects alone from residential sites of over 100 dwellings and would negate the need for applicants to prepare a shadow/ advisory appropriate assessment report detailing bespoke avoidance and mitigation measures.

Colchester Borough Council, as competent authority under the Habitat Regulations, has concluded that due to the provision of open space within Tiptree, together with the requirement for the protection and enhancement of green spaces and access to the countryside and long term ownership and stewardship of new public green spaces created as part of new development (0.27ha at Tower End, 0.36ha at Highlands Nursery and 0.8ha at Elms Farm), and there being no Habitats sites within a reasonable walking distance of Tiptree, the Tiptree Neighbourhood Plan alone will not lead to adverse effects on integrity.

## Appropriate assessment: likely significant effects in-combination

The screening matrix of all planning policies within the Tiptree Neighbourhood Plan (appendix 1) shows that all policies except policies TIP13: Tower End and TIP14: Highlands Nursery and Elms Farm, which allocate sites for the development of 625 dwellings, will not lead to any adverse effects and can be screened out of further assessment.

Colchester Borough Council has carried out an appropriate assessment of the Section 2 Local Plan. This includes a detailed in-combination assessment, which considers the in-combination effects of the Section 2 Local Plan with other neighbourhood plans and other Local Plan's across Essex, on Habitats sites. A Statement of Common Ground signed by Colchester Borough Council and Natural England, confirms that Natural England agrees with the conclusion that Section 2 will not lead to adverse effects on the integrity of Habitats sites either alone or incombination.

Policy SS14 of the Local Plan provides for the development of 600 dwellings in Tiptree. Policy SS14 was screened out of further assessment owing to the location of Tiptree in relation to Habitats sites.

The appropriate assessment of the Section 2 Local Plan recommended the implementation of an Essex Coast Recreational disturbance Avoidance and Mitigation Strategy (RAMS), including the Colne and Blackwater Estuaries. Reference to the RAMS is included in the Section 2 Local Plan. The RAMS Strategy Document, which includes a Technical Report and Mitigation Report, has now been finalised and was adopted by Colchester Borough Council in October 2019. Consultation on a draft Essex Coast RAMS Supplementary Planning Document (SPD) took place in January-February 2020.

The neighbourhood plan includes the LPAs updated standard RAMS policy for neighbourhood plans (policy TIP16), which has been agreed by Natural England. An older version of this policy, which refers to interim measures, is included in the adopted Wivenhoe, West Bergholt and Eight Ash Green neighbourhood plans. This policy requires development within the zones of influence of a Habitats site to make financial contributions towards the mitigation measures set out in the RAMS. Appendix 2 includes the policy.

Mitigation measures to address recreational disturbance in-combination, i.e. the implementation of the Essex Coast RAMS, have been written into the Local Plan and Tiptree neighbourhood plan. The Essex Coast RAMS Strategy Document is completed, and Colchester Borough Council is collecting financial contributions towards the avoidance and mitigation measures outlined in the RAMS. This ensure that residential development in Colchester will not have adverse effects on integrity and planning decisions are made having regard to the requirements of the Habitats Regulations.

An adverse effect on the integrity of the identified designated sites can be avoided through the inclusion of TIP16 (the Essex Coast RAMS policy) and a commitment to SANG provision. The basic condition set out in Schedule 2 of The Neighbourhood Planning (General) Regulations 2012 that the making of the neighbourhood development plan does not breach the requirements of Chapter 8 of Part 6 of the Conservation of Habitats and Species Regulations 2017 is therefore met.

Natural England welcomes the Appropriate Assessment for the Tiptree Neighbourhood Plan and would agree with the broad conclusions in that an adverse effect on the integrity of the identified designated sites can be avoided through appropriate mitigation measures.

# Appendix 1. Screening Matrix of Tiptree Neighbourhood Plan policies

Policy	Likely significant effects?	Screened out?
TIP1: Tiptree Settlement Boundaries	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity.	Yes
TIP02: Good Quality Design	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity.	Yes
TIP03: Residential Car Parking	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity.	Yes
TIP04: Building for Life	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity.	Yes
TIP05: Dwelling Mix	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity.	Yes
TIP06: Cycling, Walking and Disability Access Routes	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity.	Yes
TIP07: Mitigating the impact of vehicular traffic through Tiptree village	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity.	Yes
TIP08: Tiptree village centre existing businesses	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity.	Yes
TIP09: Tiptree village centre new developments	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity.	Yes
TIP10: Business development	Whilst this policy may lead to the development of land it relates to existing businesses and will not directly lead to new residential	Yes

	development and population growth.	
TIP11: Community infrastructure provision	Whilst this policy may lead to the development of land it relates to areas of open space and community buildings and will not directly lead to new residential development and	Yes
	population growth.	
TIP12: Comprehensive development	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity.	Yes
TIP13: Tower End	The policy allocates land for 175 dwellings and sets out requirements for the site. As a policy it will lead to the physical development of land in accordance with the Local Plan spatial strategy (policy SG1). There is potential for likely significant effects incombination with the Local Plan.	No
TIP14: Highland Nursery and Elms Farm	The policy allocates land for 450 dwellings and sets out requirements for the site. As a policy it will lead to the physical development of land in accordance with the Local Plan spatial strategy (policy SG1). There is potential for likely significant effects incombination with the Local Plan.	No
TIP16: Countryside and green spaces	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity.	Yes
TIP17: Recreational disturbance avoidance and mitigation	As a policy it will not lead directly to the physical development of land and therefore will not lead to adverse effects on integrity. The policy will lead to the avoidance and mitigation of likely significant effects in-combination.	Yes

# **Appendix 2. Updated RAMS Neighbourhood Plan Policy**

Recommended Habitat Regulations Assessment text for Neighbourhood Plans:

#### **Recreational Disturbance**

Habitat Regulations Assessments have been completed for Colchester Borough Council's Section 1 Local Plan and Section 2 Local Plan. Both of these assessments identified that the in-combination effects of the Section 1 and Section 2 Local Plans (including the cumulative effects of the Section 2 allocations), together with neighbouring local planning authorities Local Plans and neighbourhood plans will lead to likely significant effects to designated nature conservation sites, in particular the Colne Estuary Special Protection Area and the Blackwater Estuary Special Protection Area (both are protected under the Ramsar international treaty) and also the Essex Estuaries Special Area of Conservation.

In view of that, Colchester Borough Council is working with eleven other Greater Essex local planning authorities, and Natural England, on the Essex Coast Recreational disturbance Avoidance and Mitigation Strategy (RAMS). The Essex Coast RAMS is a strategic solution to protect the Essex coast from the recreational pressures of a growing population. A RAMS is usually driven by challenges and opportunities arising from planning issues. RAMS generally applies more broadly than at a single designated Habitat site, provides strategic scale mitigation and enables the development of a generic approach to evidence collection and use.

Financial contributions will be sought for all residential development, which falls within the zones of influence, towards a package of measures to avoid and mitigate likely significant adverse effects in accordance with policy SP1b of the Shared Strategic Section 1 Plan and policy ENV1 (Environment) of the Section 2 Colchester Borough Local Plan. This includes development allocated in Neighbourhood Plans within Colchester Borough. The whole of Colchester borough is located within the zone of influence. Details of the zones of influence and the necessary measures are included in the Essex Coast RAMS Strategy Document and Supplementary Planning Document (SPD).

In addition to payment of the RAMS tariff, all development sites over 100 dwellings should include provision of well-designed open space/green infrastructure, proportionate to its scale, to avoid likely significant effects from recreational disturbance alone. Such provisions can help minimise any predicted increase in recreational pressure to Habitats sites by containing the majority of recreation within and around the development site, away from Habitats sites. New Suitable Accessible Natural Greenspace (SANG) should include: high-quality, informal, seminatural areas; a circular dog walking route of 2.7 km; dedicated 'dogs-off-lead'

areas; signage/information leaflets to householders to promote these areas for recreation; dog waste bins; and a commitment to the long term maintenance and management of these provisions.

Should a suitable site become available and, as an alternative to SANG provision onsite, there would be an opportunity for new development in Tiptree to contribute to

# POLICY TIP16: ESSEX COAST RECREATIONAL DISTURBANCE AVOIDANCE AND MITIGATION STRATEGY

All residential development within the zones of influence of Habitat sites will be required to make a financial contribution towards mitigation measures, as detailed in the Essex coast RAMS, to avoid adverse in-combination recreational disturbance effects on Habitat sites.

the creation of a strategic new area of open space, akin to a country park for Tiptree, for informal recreation.

# **Appendix 3: Information about Habitats sites**

	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
Large estuar river.	rine site in	south-east England. The site o	comprises the major estuaries of th	e Colne, Blackwater, Crouch and Roach
Essex Estuaries SAC	46140.82	Annex 1 habitats that are a primary reason for selection of this site: Estuaries Mudfalts and sandflats not covered by seawater at low tide Salicornia and other animals colonising mud and sand Spartina swards (Spartinion maritimae) Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Mediterranean and thermo-Atlantic halophilous scrubs Annex 1 habitats present as a qualifying feature: Sandbanks which are slightly covered by seawater	With regard to the individual species and/or assemblage of species for which the site has been classified: Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive. Subject to natural change, to maintain or restore: The extent and distribution of the habitats of the qualifying features; The structure and function of the habitats of the qualifying	along much of the Essex coastline prevent intertidal habitats from shifting landward in response to rising sea levels. As a result, these habitats are being gradually degraded and reduced in extent, 'Managed realignment' schemes and additional intervention measures to create new areas of intertidal habitat and reduce erosion rates are being implemented but more will be needed to offset future losses.  Fisheries: Commercial marine and estuarine — Shellfish dredging over subtidal habitats has been identified as an Amber activity and is considered a high priority for assessment and development of possible management for the site.

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		all the time	features; The supporting processes on which the habitats of the qualifying features rely; The populations of the qualifying features; The distribution of the qualifying features within the site.	I

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				may damage the intertidal mudflats and sandflats and associated sub-features and communities, such as eelgrass beds. The extent of the activity and potential impacts on site features are not currently well understood.  Air Pollution: risk of atmospheric nitrogen deposition - Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects. However, on the Essex estuaries declines in the numbers of breeding terns appear to be due mainly to erosion of a man-made cockle-shingle bank (at Foulness) and to disturbance (elsewhere), rather than to overvegetation of breeding areas caused by nitrogen deposition.

The Stour and Orwell estuaries straddle the eastern part of the Essex/Suffolk border in eastern England. The estuaries include extensive mud-flats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. The mud-flats hold *Enteromorpha, Zostera* and *Salicornia* spp. The site also includes an area of low-lying grazing marsh at Shotley Marshes on the south side of the Orwell. In summer, the site supports important numbers of breeding Avocet *Recurvirostra avosetta*, while in

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
Stour and Orwell Estuaries SPA	3676.92	Annex I species: Over winter: Hen Harrier Circus cyaneus This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of Habitats importance of the following migratory species: Over winter: Black-tailed Godwit Limosa limosa islandica Dunlin Calidris alpina alpina Grey Plover Pluvialis squatarola Pintail Anas acuta Redshank Tringa totanus Ringed Plover Charadrius hiaticula Shelduck Tadorna tadorna Turnstone Arenaria interpres The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000waterfowl including:	habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.  Subject to natural change, to maintain or restore: The extent and distribution of the habitats of the qualifying features; The structure and function of the habitats of the qualifying features; The supporting processes on which the habitats of the qualifying features rely;	Coastal squeeze — Coastal defences are present along most of the Orwell coastline to mitigate for impacts from climate change, such as rising sea level. Unless changes are made to the management of the coastline, habitats supporting qualifying SPA birds will be lost or degraded through coastal squeeze, sedimentation and reduced exposure.  Public access/disturbance — Stour and Orwell Estuaries is subject to landand water-based activities, including boating and water sports; walking; bait-digging; fishing; wildfowling; and military overflight training. These activities are likely to impact habitats supporting breeding and overwintering water birds. A better understanding of which species and habitats are most susceptible; which types of activity are most disturbing; and which locations and times of year are most sensitive is required to ensure the Estuaries are appropriately managed.  Changes in species distribution —

Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
	Cormorant Phalacrocorax carbo; Pintail Anas acuta; Ringed Plover Charadrius hiaticula; Grey Plover Pluvialis squatarola; Dunlin Calidris alpina alpine; Black-tailed Godwit Limosa limosa islandica; Redshank Tringa tetanus; Shelduck Tadorna tadorna; Great Crested Grebe Podiceps cristatus; Curlew Numenius arquata; Dark-bellied Brent Goose Branta bernicla bernicla; Wigeon Anas Penelope; Goldeneye Bucephala clangula; Oystercatcher Haematopus ostralegus; Lapwing Vanellus vanellus; Knot Calidris canutus; Turnstone Arenaria interpres.	features; The distribution of the qualifying features within the site.	Declines in the number of bird species present at Orwell coastline have occurred. This is likely to be the result of changes in population and distribution on an international scale, due to climate change.  Invasive species — An increase in Spartina anglica may be affecting the growth of Spartina maritime, a key habitat feature for qualifying bird roosting and feeding areas of saltmarsh and mudflat.  Planning permission: General — The issue of development in combination with other factors is not fully understood. To ensure management is appropriate to the SPA a better understanding of the sensitivities relating to each habitat, species and location to different types of development is required. Difficult issues highlighted by the SIP include; a) Assessing the cumulative effects of numerous, small and often 'nonstandard' developments. b) Development outside the SPA

Site Name Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
			boundary can have negative impacts, particularly on the estuaries' birds. c) Assessing the indirect, 'knock-on' effects of proposals. d) Pressure to relax planning conditions on existing developments.  Air pollution: impact from atmospheric nitrogen deposition — Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects.  Inappropriate coastal management — Due to the presence of existing hard sea defences, such as sea walls there is little scope for adaptation to rising sea levels. Any freshwater habitats behind failing seawalls are likely to be inundated by seawater, which would result in the loss of this habitat within the SPA.  Fisheries: Commercial and estuarine — Commercial fishing activities can be very damaging to inshore marine habitats and the bird species dependent

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				on the communities they support. Any 'amber or green' categorised commercial fishing activities in Habitats Marine Sites are assessed by Kent and Essex Inshore Fisheries Conservation Authority (IFCA). This assessment takes into account any in-combination effects of amber activities and/or appropriate plans or projects.
Stour and Orwell Estuaries Ramsar site	3676.92	Ramsar criterion 2 Contains seven nationally scarce plants: Stiff saltmarsh-grass Puccinellia rupestris Small cord-grass Spartina maritime Perennial glasswort Sarcocornia perennis Lax-flowered sea lavender Limonium humile Eelgrasses Zostera angustifolia, Z. marina and Z. noltei. Ramsar criterion 5 Assemblages of international importance;	None available.	Similar to Stour and Orwell Estuaries SPA (See above).  A key threat identified by RIS was erosion.  Erosion – Natural coastal processes exacerbated by fixed sea defences, port development and maintenance dredging. Erosion is being tackled through sediment replacement for additional erosion that can be attributed to port development and maintenance dredging. A realignment site has been created on-site to make up for the loss of habitat due to capital dredging. General background erosion has not been tackled although a Flood Management Strategy for the site is

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		species with peak counts in winter; 63,017 waterfowl. Ramsar criterion 6 species/ populations occurring at levels of international importance: Species with peak counts in spring/autumn: Common redshank, Tringa totanus tetanus. Species with peak counts in winter: Dark-bellied brent goose, Branta bernicla bernicla; Northern pintail, Anas acuta; Grey plover, Pluvialis squatarola; Red knot, Calidris canutus islandica; Dunlin , Calidris alpina alpina Black-tailed godwit, Limosa limosa islandica; Common redshank, Tringa totanus tetanus.		being produced.
The Coine	stuary is l	ocated on the coast of Essex in	eastern England. It is a comparativ	ely short and branching estuary, with five

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity	
			and the control of th	ntertidal zone predominantly composed of	
				e estuary is of importance for a range of	
wintering wildfowl and waders, in addition to breeding Little Tern Sterna albifrons which nest on shell, sand and shingle spits. There is a wide variety of coastal habitats which include mud-flat, saltmarsh, grazing marsh, sand and shingle spits, disused gravel					
pits and reedbeds which provide feeding and roosting opportunities for the large numbers of waterbirds that use the site.					
The Colne E	Estuary is a	n integral component of the pha	ased Mid-Essex Coast SPA		
Colne	2701.43	Annex I populations of the	Avoid the deterioration of the	Coastal Squeeze – Coastal defences	
Estuary		following species:	habitats of the qualifying	along much of the Essex coastline	

Colne Estuary (Mid-		2701.43	Annex I populations of the following species:			1	
Essex Coast			During -	the bi	reeding	season	1
Phase SPA	2)		•	Little albifroi	Tern ns	Sterna	1
			Over w	vinter -			á
			•	Avocet	t Recur	virostra	I
				avoset	tta		,
			•	Golder	า	Plover	1
				Pluvial	lis aprica	aria	-
			•	Hen	Harrier	Circus	ŀ
				cyane	JS		f
					te also d Article D	•	f

(79/409/EEC)

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disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.

Subject to natural change, to maintain or restore:

The extent and distribution of the habitats of the qualifying features:

The structure and function of the habitats the qualifying features:

The supporting processes on which the habitats of the qualifying features rely;

features, and the significant prevent intertidal habitats from shifting landward in response to rising sea levels. As a result, these habitats are being gradually degraded and reduced in extent, with knock-on effects on the waterbirds and other species they 'Managed realignment' support. schemes and additional intervention measures to create new areas of intertidal habitat and reduce erosion rates are being implemented but more will be needed to offset future losses. Grazing marshes in the area of the Mid Essex Coast SPAs are important for waterbirds and are also threatened by sea level rise because most are near or below mean high tide level, currently protected behind seawalls.

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		populations of Habitats importance of the following migratory species:  Over winter -  Dark-bellied Brent Goose Branta bernicla bernicla  Redshank Tringa totanus  The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl	The populations of the qualifying features; The distribution of the qualifying features within the site.	Public access /disturbance — Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities - including boating and watersports, walking, bait-digging, fishing and wildfowling - as well as lowflying aircraft. Some activities, such as powerboating, may produce physical disturbance to habitats.  Planning permission: general — Several of the issues affecting the Essex Estuaries and the management of disturbance effects on the sites are related to each other, and addressing them is likely to require an improved overview of the relative sensitivities of different habitats, species and locations to different types of development.  Changes in species distributions — Declines have occurred in the numbers of some of the waterbird species using the Essex Estuaries SIP area but these may be due to changes in their distributions or population levels at a national or continental scale, possibly

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	site integrity
				Invasive species — An increase in Pacific oyster <i>Crassostrea gigas</i> settlement and colonisation within the Habitats Marine Site (EMS) may result in areas of foreshore being covered in such numbers as to make them difficult to access and utilise as feeding grounds for overwintering birds. Invasive common cord grass may adversely affect other species and habitats, including feeding and roosting areas of SPA bird species.  Fishing — Recreational bait digging may impact waterbirds e.g. by reducing prey availability, or damaging the intertidal mudflats and sandflats and associated communities. The extent of the activity and potential impacts on site features are not currently well understood. Certain forms of commercial fishing, e.g. bottom towed fishing gear; can be very damaging to inshore marine habitats and the bird species dependent on the communities they support.

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				Air Pollution: risk of atmospheric nitrogen deposition — Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects. However, on the Essex estuaries declines in the numbers of breeding terns appear to be due mainly to erosion of a man-made cockle-shingle bank (at Foulness) and to disturbance (elsewhere), rather than to overvegetation of breeding areas caused by nitrogen deposition.
Colne Estuary (Mid- Essex Coast Phase 2) Ramsar site	2701.43	Ramsar criterion 1  The site is important due to the extent and diversity of saltmarsh present.  Ramsar criterion 2  The site supports 12 species of nationally scarce plants and at least 38 British Red Data Book invertebrate	None available.	Similar to Colne Estuary SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		species.		
		Ramsar criterion 3		
		This site supports a full and representative sequence of saltmarsh plant communities covering the range of variation in Britain.		
		Ramsar criterion 5		
		Assemblages of international importance:		
		Species with peak counts in winter: 32041 waterfowl (5 year peak mean 1998/99-2002/2003)		
		Ramsar criterion 6		
		Species/populations occurring at levels of international importance.		

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Qualifying Species/populations (as identified at designation):		
		Species with peak counts in winter: Dark-bellied brent goose, Branta bernicla bernicla; Common redshank, Tringa totanus tetanus. Species/populations identified subsequent to designation for possible future consideration under criterion 6.		
country for	overwinteri	ng waterfowl and also support		e of the most important reservoirs in the ulting birds in early autumn and a large
Abberton Reservoir SPA	726.2	internationally important waterbird assemblage:	With regard to the individual species and/or assemblage of species for which the site has been classified:	reservoir inflow due to agricultural practices within catchment. <b>Public access / disturbance</b> –
		Podiceps cristatus; Great crested grebe (Non-	Avoid the deterioration of the habitats of the qualifying	

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		breeding) Phalacrocorax carbo; Great cormorant (Breeding) Cygnus olor, Mute swan (Non-breeding) Anas penelope; Eurasian wigeon (Non-breeding) Anas strepera; Gadwall (Non-breeding) Anas crecca; Eurasian teal (Non-breeding) Anas clypeata; Northern shoveler (Non-breeding) Aythya ferina; Common pochard (Non-breeding) Aythya fuligula; Tufted duck (Non-breeding) Bucephala clangula; Common goldeneye (Non-breeding) Fulica atra; Common coot (Non-breeding) Pluvialis apricaria; Habitats golden plover (Non-breeding)	features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.  Subject to natural change, to maintain or restore: The extent and distribution of the habitats of the qualifying features; The structure and function of the habitats of the qualifying features;	trespassing and disturbance by low flying aircraft.  Planning permission: general — potential future threat to designated waterbirds if farmland providing supporting habitat close to the SPA were lost to development; requires further study.  Changes in species distributions — unexplained decline in designated population of cormorant.  Bird strike — death of designated mute swans and possibly other species from collision with overhead powerlines near reservoir.

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
				attributed to this. Currently the water level of the main, eastern section is being raised by 3 metres to increase storage capacity. As part of the levelraising scheme, the original concrete banks have been removed and the shoreline re-profiled, creating extensive new areas of shallow wetland habitat for the site's waterfowl.  The Water Company has a consultative committee which addresses conservation issues at all its sites, and the Abberton Reserve Committee (involving Essex Wildlife Trust and EN) addresses local issues.  Air Pollution: risk of atmospheric nitrogen deposition — The site is identified as at risk from air pollution as Nitrogen deposition levels exceed the site- relevant critical load for ecosystem protection. However the site's Nitrogen load is likely to be dominated by levels in the water entering the reservoir (mainly from the distant Ouse catchment) rather than direct deposition.

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
Abberton Reservoir Ramsar site	726.2	Supports 23787 waterfowl (5 year peak mean 1998/99-2002/2003) including the following internationally important waterbird assemblage: Gadwall, Anas strepera strepera; Northern shoveler, Anas clypeata; Eurasian wigeon, Anas Penelope; Mute swan, Cygnus olor Common pochard, Aythya farina; Great cormorant, Phalacrocorax carbo carbo; Eurasian teal, Anas crecca; Tufted duck, Aythya fuligula; Common coot, Fulica atra atra; Pied avocet, Recurvirostra avosetta; Ruff, Philomachus pugnax, Black-tailed godwit, Limosa limosa islandica;	None available.	Similar to Abberton Reservoir SPA (above).

 Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
	Spotted redshank, Tringa erythropus, Common greenshank , Tringa nebularia, Common goldeneye , Bucephala clangula		
	is a large estuary between the Maldon and about 8 km south		and on the Essex coast. It stretches from
4395.15	Qualifying Features (Waterbird assemblage): Branta bernicla bernicla; Dark-bellied brent goose (Non-breeding) Aythya ferina; Common pochard (Breeding) Circus cyaneus; Hen harrier (Non-breeding) Charadrius hiaticula; Ringed plover (Breeding) Pluvialis squatarola; Grey plover (Non-breeding) Calidris alpina alpina; Dunlin (Non-breeding) Limosa limosa islandica; Black-tailed godwit (Non-breeding)	With regard to the individual species and/or assemblage of species for which the site has been classified:  • Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.  Subject to natural change, to maintain or restore:  • The extent and	Similar to Colne Estuary SPA (above)

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		Sterna albifrons; Little tern (Breeding)     Additional Qualifying Features Identified by the 2001 UK SPA Review: Tadorna tadorna; Common shelduck (Non-breeding)     Recurvirostra avosetta; Pied avocet (Non-breeding)     Charadrius hiaticula; Ringed plover (Non-breeding)     Pluvialis apricaria; Habitats golden plover (Non-breeding)     Philomachus pugnax; Ruff (Non-breeding)     Tringa totanus; Common redshank (Non-breeding)	distribution of the habitats of the qualifying features;  The structure and function of the habitats of the qualifying features;  The supporting processes on which the habitats of the qualifying features rely;  The populations of the qualifying features;  The distribution of the qualifying features within the site.	
Blackwater Estuary (Mid- Essex Coast Phase 4) Ramsar site	4395.15	Represents 70% of the saltmarsh habitat in Essex and 7% of the total area of saltmarsh in Britain. Invertebrate fauna includes at least 16 British Red Data Book species:  • water beetle	None available.	Similar to Colne Estuary SPA (above).

Site Name Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
	Paracymus aeneus;  damselfly Lestes dryas;  flies Aedes flavescens, Erioptera bivittata, Hybomitra expollicata;  spiders Heliophanus auratus and Trichopterna cito;  beetles Baris scolopacea, Philonthus punctus, Graptodytes bilineatus and Malachius vulneratus;  flies Campsicemus magius, Myopites eximia;  moths Idaea ochrata and Malacosoma castrensis; spider Euophrys.  Supports a full and representative sequences of		

rea na)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
	saltmarsh plant communities covering the range of variation in Britain. Supports the following internationally important wildfowl assemblage:  • Dark-bellied brent goose, Branta bernicla bernicla;  • Grey plover, Pluvialis squatarola;  • Dunlin, Calidris alpina alpine;  • Black-tailed godwit, Limosa limosa islandica;  • Habitats golden plover, Pluvialis apricaria apricaria;  • Common redshank, Tringa totanus tetanus.		