



Cotswold Water Park SSSI
Gloucestershire, Oxfordshire, Wiltshire
Supporting Information

Issued by Natural England's West Midlands Team on 7 January 2021

Contact points and further information

This supplement is issued on request by Natural England's West Midlands Team and is intended to be read in conjunction with the notification document for owners, occupiers and other notified parties.

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Summary

Cotswold Water Park SSSI is notified under section 28C of the Wildlife and Countryside Act 1981. The site is a large series of former and current gravel workings. Associated with these is a variety of habitats, including reedbed (photograph 2), fringing wetlands (photograph 4), wet and dry woodland, scrub, unimproved (species-rich) and improved grassland. It is of special interest for the following nationally important features that occur within and are supported by the wider habitat mosaic:

- breeding great crested grebe *Podiceps cristatus*; little egret *Egretta garzetta* and little ringed plover *Charadrius dubius*;
- a diverse assemblage of breeding birds of lowland open waters and their margins and scrub;
- non-breeding shoveler *Spatula clypeata*; gadwall *Mareca strepera*; pochard *Aythya ferina*; tufted duck *Aythya fuligula*; great crested grebe; coot *Fulica atra*; green sandpiper *Tringa ochropus*; and lesser black-backed gull *Larus fuscus*;
- an assemblage of over 20,000 waterbirds during the non-breeding season; and
- populations of the aquatic plants starry stonewort *Nitellopsis obtusa*, lesser bearded stonewort *Chara curta*; pointed stonewort *Nitella mucronata* and clustered stonewort *Tolypella glomerata*.

Parts of the previously notified site are not considered to be of special interest. Accordingly, these areas are proposed for de-notification under section 28D of the Wildlife and Countryside Act 1981.

1. Information used to support the selection of Cotswold Water Park (CWP) SSSI.

Feature	Data source	Author	Date	Content
General	Guidelines for the removal of an SSSI notification (denotification).	English Nature	2005	Guidelines for the removal of an SSSI notification.
	Guidelines for the Selection of Biological SSSIs. Part 1: Rationale, Operational Approach and Criteria for Site Selection. JNCC, Peterborough. Published online: http://jncc.defra.gov.uk/pdf/SSSI_GuidelinesPart1_PUBLICATION_Dec2013v2.pdf	Bainbridge, I., Brown, A., Burnett, N., Corbett, P., Cork, C., Ferris, R., Howe, M., Maddock, A. & Pritchard, S. (eds)	2013	General principles and guidance for the selection of SSSIs.
Birds	A review of the ornithological interest of SSSIs in England. Natural England Research Report NERR015. http://publications.naturalengland.org.uk/file/59024	Drewitt, A., Evans, T. & Grice, P.	2008	Identifies the importance of the Cotswold Water Park for non-breeding waterbird species.
	The BTO National Nightingale Census 2012: Some local perspectives in the Cotswold Water Park. Unpublished. https://www.glosnats.org/wp-content/uploads/2016/04/GNS-News-201212.pdf	Harris, G.	2012	Detailed report of distribution of nightingale records in the CWP from the national survey alongside longer-term data from surveys in the CWP.
	Little Ringed Plover, <i>Charadrius dubius</i> and other scarce breeding waterbirds on mineral sites in the Cotswold Water Park, Spring & Summer 2015. Unpublished.	Harris, G	2015	Survey of all suitable habitat.
	Transect breeding bird survey. Natural England. NERR in prep.	Natural England	2015-2019	Collated transect survey data following BTO methodology. 2015 survey covered 109 of the lakes in the CWP, supplemented by further lakes covered more briefly in 2018 and 2019.
	BTO Heronries Census.	British Trust for Ornithology	2015-2019	Numbers of breeding pairs of heron species in the UK.

Feature	Data source	Author	Date	Content
	Rare Breeding Birds Panel Data. http://www.rbbp.org.uk/wp-content/uploads/2020/07/rbbp-report-2017.pdf	Rare Breeding Birds Panel	2017-2018	Verified breeding records for rare birds.
	Cotswold Water Park Coordinated Winter Gull Roost Counts – Winter 2017-2018. Unpublished.	Harris, G	2018	Roost count totals at selected lakes.
	Wiltshire & Swindon Biological Records Centre.		2018	Breeding season records for key wetland and scrub bird species within the CWP in Wiltshire.
	Gloucestershire Centre for Environmental Records.		2018	Breeding season records for key wetland and scrub bird species within the CWP in Gloucestershire.
	Waterbirds in the UK 2018/19: The Wetland Bird Survey. BTO/RSPB/JNCC. Thetford. https://www.bto.org/our-science/projects/wetland-bird-survey/publications/webs-annual-report	Frost, T.M., Calbrade, N. A., Birtles, G. A., Mellan, H.J., Hall, C., Robinson, A. E., Wotton, S.R., Balmer D. E. and Austin, G. E.	2020	Annual Wetland Bird Survey results.
	Guidelines for the Selection of Biological SSSIs. Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 17: Birds (Version 1.1). JNCC, Peterborough. https://hub.jncc.gov.uk/assets/16bd76ad-bb74-4724-9e06-5df02b459524	Drewitt, A. L., Whitehead, S. and Cohen, S.	2020	SSSI selection guidance for birds.
	The Wetland Bird Survey – wildfowl and wader counts. Five year summary 2014/15 - 2018/19. British Trust for Ornithology.	Summary report produced by N.A. Calbrade of the BTO	2020	Five year summary for Cotswold Water Park.
	A summary of summer records of bittern in the Cotswold Water Park. Authenticated records summarised by the Cotswold Water Park Trust, unpublished.	Cotswold Water Park Trust	2020	Summary paper of recent records of probable and confirmed breeding.
	Grasshopper Warbler and Nightingale Breeding Status in the CWP 2015 – 2020. Authenticated records summarised by the Cotswold Water Park Trust, unpublished.	Cotswold Water Park Trust	2020	Collated breeding records.

Feature	Data source	Author	Date	Content
	Population estimates of birds in Great Britain and the United Kingdom. <i>British Birds</i> Volume 113, 69-104. https://www.bto.org/sites/default/files/publications/a pep4-population-estimates-birds-great-britain-uk-2020.pdf	Woodward, I., Aebischer, N., Burnell, D., Eaton, M., Frost, T., Hall, C., Stroud, D. and Noble, D., 2020	2020	Estimates of population size for bird species in GB and the UK.
Aquatic plants	British Red Data Book. 1. Vascular Plants 1st Edition. Lincoln Royal Society for Nature Conservation.	Perring, F.H. & Farrell, L.	1977	Status definitions for stoneworts.
	British Red Data Book. 1. Vascular Plants 2nd Edition. Lincoln Royal Society for Nature Conservation.	Perring, F.H. & Farrell, L.	1983	Status definitions for stoneworts.
	Red Data Books of Britain and Ireland: Stoneworts. JNCC, Peterborough.	Stewart, N.F. & Church, J.M.	1992	Assessment of stonewort status using regional IUCN guidelines.
	Important Stonewort Areas of the United Kingdom. https://www.plantlife.org.uk/application/files/7214/8233/2561/Important_Stonewort_Areas_-_summary.pdf .	Stewart, N.F.	2004	Identifies the key locations for stoneworts in the UK.
	A review of the vegetation of gravel pit lakes in Cotswold Water Park. Ecus Ltd. NECR in prep.	Stewart, N	2015	Stonewort records in winter 2014/15.
	A review of the vegetation of gravel pit lakes in the Cotswold Water Park 2014 & 2018. NECR in prep.	Stewart, N.F.	2018	Collation of data from the 2014/15 and 2017/18 surveys, plus analysis of stonewort quality by lake.
	JNCC Taxon Designations Spreadsheet, accessed November 2020. https://hub.jncc.gov.uk/assets/478f7160-967b-4366-acdf-8941fd33850b	JNCC	2020	Threat status and range information for rare stoneworts.
	The BSBI Distribution Database - accessed August 2020. https://database.bsbi.org/search.php	Botanical Society of Britain and Ireland	2020	Distribution of plants by Area of Search. Nitellopsis obtuse 2016 SU0626696707 Cotswold Water Park Lake 12
	A Red List of Stoneworts in Wales. NRW Evidence Report No. 406, Natural Resources Wales, Bangor. https://www.bis.org.uk/storage/library/StonewortsRDBWalesNRWEvidenceReport406.pdf	Stewart N.F. and Hatton-Ellis T.W.	2020	Assessment of stonewort status using regional IUCN guidelines.

Feature	Data source	Author	Date	Content
	Guidelines for the Selection of Biological SSSIs - Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 15 Charophytes (Stoneworts), JNCC, Peterborough. https://hub.jncc.gov.uk/assets/b70b5131-1fac-46bc-ba22-bf920e9d9280	Hatton-Ellis, T., Taylor, I., Lawrie, E. and Maggs, C.A	2020	SSSI selection guidance for stoneworts.

2. Explanation of how the Cotswold Water Park meets the SSSI selection guidelines

This section explains how the information listed in Section 1 has informed the decision to notify the SSSI, according to the *Guidelines for the selection of Biological SSSIs. Part 1: Rationale, Operational Approach and Criteria for Site Selection* (Bainbridge et al. 2013) and *Part 2: Detailed Guidelines for Habitats and Species Groups*, hereafter referred to as 'the Guidelines'.

3.1 Non-breeding birds

The Guidelines (Chapter 17, section 3.3, p5) state that:

'Localities which regularly support 1% or more of the total British non-breeding population of any native species in any season and non-breeding waterbird assemblages of over 20,000 individuals will qualify for SSSI selection'.

Table 1 presents a summary of information gathered under the Wetland Bird Survey (WeBS) from 2014/15 to 2018/19 and a coordinated Winter Gull Roost Count in 2017/18. The WeBS sectors provide complete coverage of lakes within the SSSI boundary. The data demonstrate that the SSSI supports 1% or more of the total British non-breeding populations of eight species of waterbirds.

Table 1: Non-breeding waterbird species occurring in nationally important numbers in Cotswold Water Park SSSI based on five year peak mean counts for all species except lesser black-backed gull which is taken from a Winter Gull Roost Count in 2017/18.

Species	Count	GB population ¹	% of GB population
Gadwall - <i>Mareca strepera</i>	534	31,000	1.7%
Shoveler - <i>Spatula clypeata</i>	402	19,000	2.1%
Pochard - <i>Aythya ferina</i>	493	23,000	2.1%
Tufted duck - <i>Aythya fuligula</i>	2164	130,000	1.7%
Great crested grebe - <i>Podiceps cristatus</i>	329	16,500	2.0%
Coot - <i>Fulica atra</i>	2820	200,000	1.4%
Green sandpiper - <i>Tringa ochropus</i>	12	290	4.1%
Lesser black-backed gull - <i>Larus fuscus</i>	1317	120,000	1.1%

The SSSI is regularly used by 37,131 birds. This figure is derived from the sum of the WeBS five year peak means 2014/15–2018/19 for all native waterbirds except gulls where the count from the 2017/18 Winter Roost Count has been used. WeBS survey will significantly undercount the number of gulls using the site as it is carried out in the morning just after dawn when many of the gulls will have already left the site to forage further afield. The winter roost count is undertaken in the 1.5

¹ As published in APEP 4 – Population estimates of birds in Great Britain and the United Kingdom 2020.

hours preceding sunset which will give a more accurate indication of site use. The Winter Gull Roost Count significantly underestimates the total number of gulls using the site. Logistical constraints mean that only a small sub-set of the key lakes were covered by the survey. With regard to use of data from one season for the gull count the Guidelines (Chapter 17, section 3.11, p7) state that:

'In some instances, however, for species occurring in very remote areas or which are particularly rare, or where there are particular constraints on the capacity to undertake surveys, areas may be considered suitable on the basis of fewer counts. For some countries or sites where there is very little information, single counts can help establish the relative importance of the site for a species.'

In 2017/18 the total number of gulls exceeded 20,000 at 20,848 individuals. More recent unpublished winter roost counts in 2018/19 and 2020 also exceed 20,000. This clearly demonstrates that the lake complexes which collectively form the SSSI consistently support numbers of non-breeding waterbirds that exceed the site selection threshold of 20,000 waterbirds, thus meeting the requirements of the Guidelines.

3.2 Aggregations of breeding birds

The Guidelines (Chapter 17, section 3.2, p4) state that:

'Localities which regularly support 1% or more of the total British breeding population of any native species...will qualify for SSSI selection.'

A breeding bird survey carried out by Natural England in 2015, which covered 117 lakes, Harris' 2015 species specific survey of little ringed plovers and the BTO Heronry census (2015-2019) demonstrate that the SSSI supports 1% or more of the total British breeding populations of three species. Survey data are summarised below in Table 2.

Table 2: Numbers of breeding pairs of Great crested grebe, Little ringed plover and Little egret recorded in the Cotswold Water Park SSSI.

Species	Count	GB Population ²	% of GB population
Great-crested grebe - <i>Podiceps cristatus</i>	93 ³	4,300	2.2%
Little ringed plover - <i>Charadrius dubius</i>	17-21 ⁴	1,250	1.4-1.7%
Little egret - <i>Egretta garzetta</i>	19 ⁵	1,100	1.7%

3.3 Assemblages of breeding bird species

The Guidelines (Chapter 17, section 3.8, p5) state that:

'Localities which support an especially good range of bird species characteristic of a particular habitat as defined by an index value, will qualify for SSSI selection.'

Annex 1 of the same chapter (Part 2, Chapter 17, p10) states that:

'if two habitats are included in one well-defined site, the indices for species which are on both habitat lists and have been recorded for the site should be double-counted; other species score in the usual way; for the site to qualify on this basis, its total score should exceed the qualifying threshold value for the two habitats combined.'

Data from a range of surveys and sources have been collated to determine the qualifying mixed assemblage present in the SSSI. The surveys/data are as follows:

² As published in APEP 4 – Population estimates of birds in Great Britain and the United Kingdom 2020.

³ Data from Natural England's Breeding Bird Survey (2015).

⁴ Data from Harris (2015).

⁵ Five year mean of data from the BTO Heronry census 2015-2019.

- A breeding bird transect survey commissioned by Natural England in 2015. This survey comprised four visits, one each in the months from May to August, to confirm the presence, activity and location of all breeding bird species. Further smaller-scale surveys were carried out in subsequent years for lakes not covered in 2015. These did not identify any additional species but provide evidence of regular use by the species recorded in 2015.
- BTO Heronry census 2015-2019.
- Verified Record Centre data for grasshopper warbler and nightingale.
- Rare Breeding Bird Panel records.
- Cotswold Water Park Trusts 2020 summary of summer records for Bittern.
- Grasshopper Warbler and Nightingale Breeding Status in the CWP 2015–2020. CWPT.

To satisfy the SSSI selection guidelines it is necessary to establish at least probable breeding for each assemblage species contributing to the site index total. The breeding status of each species for each transect has been established using BTO protocols supplemented by local knowledge. Table 3 summarises the assemblage score for the site and the species which contribute to a qualifying mixed assemblage for lowland open waters and their margins and scrub.

Table 3: Lowland open waters and their margins and scrub assemblage.

Species	Species Score	Lowland open waters and their margins	Lowland scrub (excluding heath)	Cotswold Water Park SSSI score
Greylag goose	2	Y		2
Mute swan	3	Y		3
Shelduck	3	Y		3
Gadwall	3	Y		3
Tufted duck	2	Y		2
Little grebe	3	Y		3
Great crested grebe	3	Y		3
Water rail	3	Y		3
Little ringed plover	3	Y		3
Common tern	2.5	Y		2.5
Cuckoo	2.5	Y	Y	5
Kingfisher	3	Y		3
Cetti's warbler	3	Y		3
Sedge warbler	1	Y		1
Reed warbler	1	Y		1
Reed bunting	1	Y		1
Long-tailed tit	1		Y	1
Garden warbler	1		Y	1
Lesser whitethroat	2		Y	2
Linnet	1		Y	1
Bullfinch	1		Y	1
Yellowhammer	1		Y	1
Garganey	4.5	Y		4.5
Shoveler	3	Y		3
Pochard	4	Y		4
Bittern	4	Y		4
Little egret	3	Y		3
Grey heron	3	Y		3
Yellow wagtail	2	Y		2
Grasshopper warbler	3	Y	Y	6
Nightingale	3		Y	3

TOTAL				81
Selection guideline threshold score		47	14.5	61.5

3.4 Aquatic plants

The principal data collected for aquatic plants is from a series of surveys carried out by the national expert on stoneworts. These took place in winter 2014/15, 2017/18 and 2019/20. Stoneworts (also known as Charophytes) are complex, multicellular algae with a branched structure (photograph 8) that occur in temporary or permanent lakes, ponds and ditches including seasonally flooded habitats and in brackish conditions. They are a relatively under surveyed taxon within Britain.

The Guidelines (Chapter 15, section 2.2.2, p.5) state that:

'Sites are eligible for selection on the basis of individual constituent species if the species:

- *is listed as threatened (i.e. CR [critically endangered], EN [endangered] or VU [vulnerable]) on a GB or Country Level Red List or equivalent (e.g. individual species assessment using IUCN criteria).*
- *is Rare or Scarce⁶. Range-restricted species are susceptible to increased stochastic risk and there is reasonable evidence (e.g. Walker et al. 2017) to suggest that SSSI designation can help prevent such species becoming threatened by reducing exposure to at least some of the risk.*
- *has been listed on the relevant Country's Biodiversity Priority Species List or has a bespoke equivalent assessment as described below.'*

3.4.1 Nationally Rare, Vulnerable and Priority Species

The status of starry stonewort *Nitellopsis obtusa* is classified as Rare in Great Britain having been confirmed as extant in 15 hectads (10km x 10km grid squares) in the most recent national review (Stewart 2004 per JNCC Taxon Designations Spreadsheet accessed 18 November 2020). Starry stonewort is also assessed as Vulnerable (VU) in GB under regional IUCN guidelines (Stewart & Church 1992 revised 2001 – see Stewart & Hatton-Ellis 2020).

The SSSI holds what is believed to now be the only population of starry stonewort in the Upper Thames Clay Vales National Character Area⁷ which is the relevant Area of Search (AoS) (BSBI Distribution Database interrogated 11 August 2020, confirmed Stewart pers. comm. 2020). This species has been recorded in two sites (including Cotswold Water Park SSSI) within the AoS in recent years but at the second, Darlow Water in the Lower Windrush Valley, it was found on a single occasion in 2007 and has not been found since.

Starry stonewort is also one of nine stonewort species which are listed as “species of principal importance in England” under Section 41 of the Natural Environment and Rural Communities Act (2006).

Starry stonewort is therefore selected under section 2.2.2 as it is a large and sustainable population of a Threatened (VU) and Rare Charophyte species listed on England's Biodiversity Priority Species List.

3.4.2 Nationally Scarce Species

The SSSI holds populations of three species of stonewort which are listed as Scarce in Great Britain in the most recent national review (Stewart 2004 per JNCC taxon Designations spreadsheet accessed 18 November 2020). The upper threshold for Scarce status is 100 hectads in Great Britain (JNCC 1989, 1992; Stewart *et al.* 1994; Stewart 2004). These three species are: lesser bearded stonewort *Chara curta*, recorded post-1990 from 55 hectads; pointed stonewort *Nitella mucronata*, recorded post-1990 from 73 hectads; and clustered stonewort *Tolypella glomerata*, recorded post 1990 from 100 hectads.

In addition to the selection criteria stated above further guidance on the selection of sites for species which are classified as Scarce, is given in section 2.2.4 of the Guidelines (Chapter 15) as follows:

'For species that are Scarce (at GB or country level) but not threatened, up to three sites per AoS may be selected. In such cases each site should be chosen to reflect occurrence in different general habitat types as appropriate (e.g. fen systems / dune slacks / lakes) within the AoS.'

⁶ At the GB level, Rare species are those occurring in 1 to 15 hectads and Scarce species occur in 16 to 100 hectads (Perring & Farrell 1977, 1983)

⁷ National Character Areas (NCAs) divide England into 159 natural areas, each defined by a unique combination of landscape, biodiversity, geodiversity and economic and cultural activity. Cotswold Water Park lies within the Upper Thames Clay Vales NCA. NCAs are now used as 'areas of search' for the purposes of SSSI selection (where appropriate) in England. For more information on NCAs, see <https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making>.

The Guidelines (Chapter 15, section 2.2.5) give further guidance on the selection of these sites:

‘When prioritising within a country or AoS, the emphasis should be on selecting sites that are sustainable in the long term. Larger populations tend to be more sustainable, but other site-specific factors such as habitat quality and the opportunity for dispersal and restoration may also need to be considered when choosing among candidate sites. The possibility of including satellite populations, metapopulations and areas with potential value as part of the same site may be considered as a means of providing greater resilience.’

The SSSI holds the largest population of lesser bearded stonewort in GB, with records from 24 lakes post 2014, the next largest being recent records from ten lakes in Baston Fen, South Lincolnshire. The SSSI therefore holds by far the largest population of this species within the AoS.

There are records of pointed stonewort from five lakes in the SSSI from 2009 onwards. Two further sites have records for this species in recent years within the AoS. They are a pond at Alvecote Wood (2015) and Fiddler’s Island (2004). In each of these other sites the species has only been recorded at single locations. Cotswold Water Park SSSI therefore holds one of only three populations in the AoS and the only one with multiple individually occupied water bodies.

Clustered stonewort (photograph 8) has been recorded from eight lakes within the SSSI in recent surveys. There are a number of older records which indicate presence in a larger number of lakes: 6 (1977), 12 (2005), 13 (2005), 40 (1976), 46/48 (1997), 55 (2011), 74 (2009), 105 (2001) and 124 (2001). Clustered stonewort is an early succession species which requires a constant turnover of waterbodies as occurs at the Cotswold Water Park SSSI. This dynamism within the population suggests that it is one of the strongest populations in GB. There are four other populations known within the AoS as follows:

Site	Comments
Pinkhill Meadow	Could not be found on recent visits (following pond clearance). Last seen in 2002.
Windrush Valley	Believed to have been lost. Last seen in 2007 (Stewart pers comm. 2020).
Otmoor	Last seen in 2006. Population believed to be small if still extant.
Mansmoor	Last seen in 2017. Population believed to be small if still extant.

These three Scarce species are selected as they are the largest sustainable populations of each species within the Area of Search.

Beyond the species described above, the hectad containing the bulk of the Park (National Grid reference: SU09) holds populations of 11 stonewort species. Only nine hectads in Britain hold more, underlining the importance of this area for stonewort diversity. The selection of this SSSI for its Rare and Scarce stoneworts contributes significantly to sustaining this nationally important Charophyte community. It will provide ample habitat diversity across a large range of water bodies encompassing the dynamism and scale compatible with the ecology of the group and the need to accommodate predicted changes in climate. It is intrinsically a resilient site with sustainable populations of the component species already within it offering scope for future recruitment in response to management and other environmental changes.

3.5 Site Boundary Determination

The SSSI includes all those water bodies that have been registered and given a number for counting as part of the Wetland Birds Survey (photograph 1). The wintering waterbird assemblage is present across all of these lakes. Birds use different lakes at different times of day, in different seasons, in response to disturbance and weather conditions. Therefore, all lakes have been considered as a single ecosystem, not as a series of individual sites, and will be assessed as a single unit. The boundary includes all lakes where open water was present in 2017. It does not include current workings where open water was not present in 2017 or those areas for which

permissions to extract have been granted but not yet started. For current workings we have used the approved restoration plan, which is an integral part of the planning permission, to inform the boundary. Where a gravel working has a planning obligation to implement a restoration end use of infilling and return to agriculture it has been excluded.

The boundary includes marginal and surrounding vegetation (photographs 2 and 4) important for both the feeding sites of waterbirds and the breeding bird assemblages of open waters, their margins and scrub. In many cases this has been to the fenced boundary of the holding from which the gravel has been extracted. But in some areas the boundary has been drawn inside fenced boundaries to exclude blocks of unsuitable habitat such as built structures, gardens, mown amenity grassland of high recreational usage, major tracks and areas of hardstanding. Where built developments such as blocks of holiday lodges are present on the lake edge (photographs 3 and 7), with overhanging structures, the boundary has been taken as the lake edge, but with overhanging structures (jetties, decking etc) excluded.

In a number of places no OS boundary feature is present. Where there is a clear current habitat divide this has been used as the boundary, but in a few places straight lines have been drawn to exclude unsuitable areas.

3. Explanation of why parts of the previously notified SSSI are not considered to be of special interest

This section explains why Natural England is of the opinion that parts of the previously notified Cotswold Water Park SSSI are not of special interest, according to the *Guidelines for the removal of an SSSI notification (denotification)* (English Nature, 2005), hereafter referred to as the 'Denotification Guidelines'.

The Denotification Guidelines (section 3.1, p.5) state that:

[Natural England] will adopt a precautionary approach to the question of the existence of special interest in cases where denotification is under consideration and in doing so will apply a set of guiding principles to assess whether a site (or part of a site) is of special interest; these are:

- i. Whether the site meets the requirements of the Guidelines for Selection of Biological SSSIs and the Geological Conservation Review.
- ii. If restoration of the special interest is possible or practicable.
- iii. Where the special interest has moved entirely outside the site, but remains adjacent or in close proximity, the site will not be denotified until the land now containing the special interest is notified.
- iv. Where there is some prospect that natural processes may return the special interest within a reasonable time, the site is unlikely to be denotified.
- v. Where cartographical errors were included in the original notification of the site.
- vi. A change of special interest from that for which it was notified, or a change that will lead to a new special interest, will not usually be a reason for denotification.

Small areas of land that are not considered to be of special interest have been included in the previously notified SSSI as a result of historical cartographical errors at 9 locations. The precise locations and descriptions of each area are provided in table 4 below.

The Denotification Guidelines (section 3.3, p.6) state that:

'.....developments or other activities, which may damage features of interest of SSSIs, may after careful consideration be justified and can be legally permitted. This may result in permanently covering over, removing or otherwise destroying the site or part of the site. Activities which may result in permanent loss or damage of the features of special interest may be authorised under legislation such as the Town and Country Planning Act 1990..... Denotification of the site will not, however, be considered in this context until after the

special interest of the site has been irreversibly lost, through the implementation of the permission in full.'

3 areas previously notified as parts of Cotswold Water Park SSSI are not considered to be of special interest following the full implementation of legally permitted developments.

Table 4: Land proposed for denotification.

Area	Description	National Grid Reference	Area (ha)
1	Cartographical error - Lake 111 overlap with Bowmoor house garden and adjacent car park.	SU1731499482	0.107
2	Cartographical error - Lake 111b doesn't follow physical boundary, overlap with adjacent fields.	SU1758999288	0.557
3	Cartographical error - Lake 41 (SW corner) doesn't follow any current physical boundary.	SU0298693330	0.026
4	Cartographical error - Lake 41 (SE corner) doesn't follow physical boundary, overlap with adjacent field.	SU0329993540	0.204
5	Cartographical error - Lake 52 (SW corner – Southern boundary) doesn't follow any current physical boundary, overlap with Lower Moor Farm garden.	SU0101093599	0.141
6	Cartographical error - Lake 52 (SW corner – Western boundary) doesn't follow any current physical boundary, overlap with Lower Moor Farm garden.	SU0097193667	0.042
7	Cartographical error - Lake 55 (SE corner) partly track, boundary doesn't need to adjoin the road here.	SU0145894499	0.072
8	Planning permission implemented after notification - Lake 55 (S corner and SW boundary) boundary doesn't need to adjoin the road here and excludes three properties.	SU0087494673	0.885
9	Cartographical error - Lake 55 (central island, S end) overlaps Captains Cabin garden area and doesn't follow any physical feature.	SU0116994772	0.107
10	Cartographical error and planning permission implemented after notification - Lake 55 removes access track from NW side to island and excludes Kaiser's Kabin.	SU0088395022	0.119
11	Planning permission implemented after notification - Lake 55 (NE boundary) Monty's Retreat excluded.	SU0141394682	0.013

4. Current condition of Cotswold Water Park SSSI

The current condition of features within Cotswold Water Park SSSI is summarised in Table 5.

Table 5. Current condition of Cotswold Water Park SSSI

Interest feature	Reported condition*	Date assessed
Aggregation of non-breeding birds – Gadwall	Favourable	October 2020
Aggregation of non-breeding birds – Shoveler	Favourable	October 2020
Aggregation of non-breeding birds – Pochard	Favourable	October 2020
Aggregation of non-breeding birds - Tufted duck	Favourable	October 2020
Aggregation of non-breeding birds - Great crested grebe	Favourable	October 2020
Aggregation of non-breeding birds – Coot	Favourable	October 2020
Aggregation of non-breeding birds - Green sandpiper	Favourable	October 2020
Aggregation of non-breeding birds - Lesser black-backed gull	Favourable	October 2020
Aggregation of breeding birds – Great crested grebe	Favourable	October 2020
Aggregation of breeding birds - Little ringed plover	Favourable	October 2020
Aggregation of breeding birds - Little egret	Favourable	October 2020
Non-breeding waterbird assemblage of over 20,000 individuals	Favourable	October 2020
Breeding bird assemblage of lowland open waters, their margins and scrub.	Favourable	October 2020
Population of the Nationally Rare and Vulnerable Starry stonewort	Favourable	October 2020
Population of the Nationally Scarce Lesser bearded stonewort	Favourable	October 2020
Population of the Nationally Scarce Pointed stonewort	Favourable	October 2020
Population of the Nationally Scarce Clustered stonewort	Favourable	October 2020

***Reported condition.** SSSIs are notified because they support special biological or geological features. When these features are being managed so that their special nature conservation interest is being maintained they are said to be in favourable condition. This is a United Kingdom standard and the terminology and definitions are more fully described in ‘A Statement on Common Standards for Monitoring Protected Sites’ produced by the JNCC in 2019.

5. Selection of ‘Operations Requiring Natural England’s Consent’

Natural England selects operations from a master list when determining the list of operations requiring consent for individual SSSIs. The selection is based on the likelihood that the operations may cause damage to the special features that are the reasons for notification of the SSSI. As well as selecting operations from the master list, the precise wording of each operation may be tailored to suit the particular circumstances at the site.

It is not possible to predict every possible eventuality that may arise on a site but the aim is to identify all operations where it is reasonably foreseeable that, if carried out at certain times or in a particular manner somewhere within the SSSI, they are likely to damage the special interest features. The table below records at least one reason justifying the inclusion of each operation in the list for Cotswold Water Park SSSI. It is not intended to be exhaustive and in most cases there will be other ways in which the specified operation is likely to cause damage.

Standard reference number	Type of operation	At least one reason for listing
1.	Cultivation, including ploughing, rotovating, harrowing and re-seeding.	Could lead to damage to marginal vegetation and increase nutrient levels in water bodies. Marginal habitats are important for breeding birds.
2.	Grazing and alterations to the grazing regime (including type of stock, intensity or seasonal pattern of grazing).	Could lead to damage to marginal vegetation and increase nutrient levels in water bodies. Marginal habitats are important for breeding birds.
3.	Stock feeding and alterations to stock feeding practice.	Could lead to localised nutrient enrichment or poaching and damage to marginal habitats.
4.	Mowing or cutting vegetation and alterations to the mowing or cutting regime (such as from haymaking to silage).	Could lead to damage to marginal vegetation which is important for breeding birds and waterfowl.
5.	Application of manure, slurry, silage liquor, fertilisers and lime.	Could lead to an increase in nutrient levels in water bodies.
6.	Application of pesticides, including herbicides (weedkillers) whether terrestrial or aquatic, and veterinary products.	Could lead to damage to marginal vegetation and contamination of water bodies, risking direct effects on stoneworts disruption of food chains for water birds.
7.	Dumping, spreading or discharging of any materials.	Marginal habitats important for breeding birds or feeding waterfowl could be damaged.
8.	Burning.	Marginal habitats important for breeding birds or feeding waterfowl could be damaged.
9.	Release into the site of any wild, feral, captive-bred or domestic animal, plant, seed or micro-organism (including genetically modified organisms).	Could lead to unforeseen interactions with indigenous species and changes in community composition.
10.	Killing, injuring, taking or removal of any wild animal (including dead animals or parts thereof), or their eggs and nests, including pest control and disturbing them in their places of shelter.	Death or disturbance of key bird species and incidental damage to marginal habitats.
11.	Destruction, displacement, removal or cutting of any plant or plant remains, including (tree, shrub, herb, hedge, dead or decaying wood, moss, lichen, fungus, leaf-mould or turf).	Direct and incidental damage to marginal habitats.
12.	Tree and/or woodland management and alterations to tree and/or woodland management (including, planting, felling, pruning and tree surgery, thinning, coppicing, changes in species composition, removal of fallen timber).	Direct and incidental damage to marginal habitats.
13a.	Draining (including the use of mole, tile, tunnel or other artificial drains).	Risk of incidental damage to marginal vegetation and direct damage to wetland habitats.

Standard reference number	Type of operation	At least one reason for listing
13b.	Modification to the structure of water courses e.g. streams, springs, ditches including their banks and beds, as by re-alignment, regrading, damming or dredging.	Risk of incidental damage to and direct loss of marginal vegetation and wetland habitats.
13c.	Management of aquatic and bank vegetation for drainage purposes.	Risk of incidental damage to and direct loss of marginal vegetation.
14.	Alterations to water levels and water tables and water utilisation (including irrigation, storage and abstraction from existing water bodies and through boreholes). Also, the modification of current drainage operations.	Aquatic macrophytes sensitive to change in hydrology, especially water depth. Direct damage to marginal vegetation in the immediate vicinity.
15.	Infilling or digging of ditches, drains, ponds, pools, marshes or pits	Direct damage to features of interest.
16a	Freshwater fishery production and/or management, including sporting fishing and angling, and alterations to freshwater fishery production and/or management.	Increased fish stocking or changing fishery type from e.g. coarse to specimen carp can have a marked adverse effect on aquatic vegetation and water quality.
20.	Extraction of minerals including sand and gravel, topsoil and subsoil.	Extraction from inappropriate locations within the SSSI could cause direct loss interest features.
21.	Destruction, construction, removal, rerouting, or regrading of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, including soil and soft rock exposures or the laying, maintenance or removal of pipelines and cables, above or below ground.	Direct loss of or incidental damage to habitat. Increase in disturbance levels for birds.
22.	Storage of materials.	Risk of obscuring/smothering marginal habitats. Risk of pollution and leakage into waterbodies.
23.	Erection of permanent or temporary structures or the undertaking of engineering works, including drilling.	Direct loss of supporting habitat for special interest features.
26.	Use of vehicles or craft.	Risk of disturbance to birds and damage to aquatic vegetation.
27.	Recreational or other activities likely to damage or disturb the features of special interest.	Disturbance of birds and incidental damage to marginal habitats.
28a.	Game and waterfowl management and hunting practices and alterations to game and waterfowl management and hunting practice.	Disturbance and killing of birds.
28b	Use of lead shot	Several breeding and non-breeding birds, are vulnerable to lead poisoning through accidental ingestion with grit (including wildfowl) or secondary ingestion by predatory and scavenging species.

6. Photographs

Photograph 1: aerial view of Cotswold Water Park SSSI .



Photograph 2: Lake 68c, Waterhay - reedbed providing supporting habitat for bird features.



Photograph 3: Lake 3, Little Horseshoe Lake showing proximity of adjacent chalets.



Photograph 4: Lake 74, Cleveland Lakes – adjacent marsh area providing supporting habitat for bird features.



Photograph 5: Lake 74c, Cleveland Lakes – area under restoration.



Photograph 6: Lake 12, Outdoor Recreation Centre, Unit 2 of 1994 SSSI notification.



Photograph 7: Lake 7, Windrush Lake – Lodge development.



Photograph 8: Clustered stonewort *Tolypella glomerata*.

