



SOUTH EAST DEVON  
HABITAT REGULATIONS  
PARTNERSHIP

# South East Devon Habitat Regulations Executive Committee

*Exe Estuary wildlife refuge monitoring –  
1<sup>st</sup> Annual report*

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July 2019



Exeter  
City Council



Legal comment/advice:

The report does not raise any direct legal implications requiring comment.

Finance comment/advice:

There are no direct financial implications arising from the recommendations in this report.

<b>Public Document:</b>	Yes
<b>Exemption:</b>	None
<b>Review date for release</b>	None

## Recommendations

It is proposed that the Executive Committee:

1. Notes the initial results from the annual wildlife refuge monitoring report.
2. Receives the second annual wildlife refuge monitoring report in summer 2020.
3. Receives an overarching review of monitoring results after completion of the third year of monitoring (2021).

Equalities impact: Low

**Risk:** Low. This report provides the results of the first annual report of the Exe estuary wildlife refuge monitoring programme. Monitoring is ongoing, so these results are interim and will form part of a three year programme to determine the efficacy of the approach to preventing recreational disturbance to the protected bird species on the Exe estuary. This is important because without robust and effective mitigation which enables the partner authorities to be certain of no net impact to protected sites, continued development as outlined in respective local plans and within 10km of the estuary is at risk of legal challenge.

## 1. Summary

1.1 As a Special Protection Area (SPA) regularly supporting a community of at least 20,000 waterbirds, the Exe estuary is afforded legal protection against the deterioration of its habitats and disturbance (and distribution) of the species for which it has been designated.

1.2 Disturbance can modify the feeding and roosting habits of protected bird species and place additional energetic stress through increased activity and lost feeding opportunities. This is likely to reduce fitness and survival, particularly if it occurs during periods when they are already stressed by other factors, such as poor weather, food shortage or prior to/after long distance migration. It can also reduce the area of habitat available to the birds for feeding or roosting.

1.3 Ongoing and regular monitoring of bird species and numbers via the Wetland Bird Monitoring Scheme (WeBS<sup>1</sup>) shows that the majority of the internationally important populations of Dark-bellied Brent Goose, Wigeon and Oystercatcher in the estuary are found at Dawlish Warren National Nature Reserve (NNR) and Exmouth Local Nature Reserve (LNR). Protecting these habitats and species from disturbance goes to the heart of the mitigation strategy for the Exe estuary.

1.4 In June 2016, the Habitat Regulations Executive Committee (HREC) approved a review of zonation in the Exe Estuary as part of the 2016-17 Annual Business

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<sup>1</sup> The Wetland Bird Survey (WeBS) is the monitoring scheme for non-breeding waterbirds in the UK, a partnership coordinated by the British Trust for Ornithology (BTO).

Plan. Given their history of involvement with users on the estuary, the Exe Estuary Management Partnership (EEMP) were awarded a contract to undertake the work.

1.5 The EEMP undertook an extensive and extended consultation with users of the Exe and other members of the public between December 2016 and June 2017. This proposed establishing two areas at the Duck Pond and north of Dawlish Warren where all human activity would be discouraged in order to reduce the frequency and impact of disturbance events in areas of critical ecological importance.

1.6 The consultation resulted in significant changes to the original proposals, primarily in response to stated concerns of safety and accommodating (as far as possible) existing uses of the areas.

1.7 Amended proposals needed to balance the legal obligations of the protected areas against the legitimate interests of users. The final recommendations from the EEMP's "Exe Estuary Zonation Review Consultation Report" were endorsed by the EEMP Management Group in June 2017.

1.9 From June to August 2017 there was a 6 week period during which a "final options" consultation was carried out by the South East Devon Habitat Regulations Partnership (SEDHRP). This was particularly to allow for seasonal estuary users to comment and to allow for comments on the EEMP's final recommendations.

1.10 Responses to the SEDHRP consultation were not substantially different in nature to those received during the first phase. Evidence from previous studies and research<sup>2</sup>, coupled with the precautionary approach required by legislation made it clear that doing nothing was not an option.

1.11 After discussion of the comments received, the Officer Working Group (OWG) agreed to put forward the final EEMP recommendations to HREC. This was subject to further work with Exeter City Council as the Harbour Authority to address the anomaly of continuing to allow use of the Exmouth refuge by Powerboats.

1.12 HREC considered and approved the recommendations to establish wildlife refuges, at Exmouth from 15 Sept – 31 Dec and all year round at Dawlish Warren, in October 2017. No fines or enforcement were suggested or recommended and an annual monitoring programme, to report over a 3 year period, was integral to the recommendations.

1.13 Permissions and licenses were sought from respective agencies and marker buoys were placed in the estuary in early August 2018. An intensive programme of public engagement was carried out, with pop-up events, literature and press releases/social media posts in preparation for the official "launch" of the refuges in September 2018.

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<sup>2</sup> See October 2017 SEDHRP report "Review of zones in the Exe Estuary"

## 2. The study.

2.1 Following a competitive tendering process, Footprint Ecology were awarded the contract and began monitoring the areas in February 2018, prior to the official launch of the refuges. This was so that, in time, it would be possible to discern whether there were any observable changes in behaviour prior to and after the refuges were officially established.

2.2 The main objectives of the consultant brief, included here as Appendix A, are:

- To determine (as far as is practicable) whether the Wildlife Refuges at Dawlish Warren and Exmouth a) work to reduce disturbance to water birds from recreational activities within these areas and b) positively contribute to the ability of the Exe Estuary to support designated bird populations in the SPA.
- To undertake a 3 year programme of monitoring (by direct observation) of the Exmouth (15 Sept – 31 Dec) & Dawlish Warren (all year) Wildlife Refuge areas, to ascertain their efficacy. Gather sufficient new data to establish the base line for new refuge areas.
- To ascertain the type, frequency and impact of disturbance events at the Exmouth Wildlife Refuge area outside of the date range of the refuge, when SPA designated species are present.
- To determine the level of adherence to the refuge areas (whether leading to a disturbance event or not).

2.3 Essential components of the survey include the following elements:

- To survey, record and quantify any disturbance events (type, response, distance, impact, species, number, time, tide) caused to water birds from different types of human activity within the refuges – on the water, inter-tidal and foreshore. This should also include activities in the refuges which do not result in disturbance.
- To survey and assess the effects on waterbirds of any consequences of displacement of water based recreational activity to other ecologically important areas in the Exe Estuary.
- Use existing studies to inform survey methodology, to ensure a growing and consistent evidence base. To use any available data (such as WeBS) to help gauge any discernible changes in the patterns of waterbird population and distribution as a result of the Wildlife Refuges.
- To compile an annual report including summary of results, interpretation of the data, full results and any issues arising.
- To compile an overarching report after a period of 3 years monitoring. This report to include comprehensive summary of results, interpretation of the data and (if appropriate) recommendations for future management.

2.4 The brief also made clear the requirement for a robust methodology which includes consideration of WeBS data, the original Exe Disturbance Study

(Footprint Ecology, 2011) and monitoring by both the EEMP and Teignbridge District Council Rangers. It references the need for direct comparison with previous studies to effectively extend the dataset and facilitate statistical analysis. 2.5 To ensure clear and concise output from the 3 year programme, the brief also included specific reference to 5 key questions which look to establish how effective the refuges are:

- 1) How well are the Wildlife Refuges adhered to in general?
- 2) Are the Wildlife Refuges working to reduce disturbance to the designated bird species on the Exe?
- 3) Have the Wildlife Refuges positively affected the ability of the Exe Estuary to support designated bird populations? I.e. if a reduction in disturbance is observed, is this enough to conclude no adverse effect on site integrity for the SPA features?
- 4) If there is an insufficient reduction in disturbance to conclude no adverse effect on site integrity for the SPA features, what further actions in these areas can be taken to avoid and minimise the disturbance to waterbirds from recreational activities?
- 5) Do any particular activities continue to cause disturbance within the refuges?

2.6 Included here as Appendix B, the survey utilises two different monitoring approaches:

- Core Counts, involving continued observation over a fixed time period (1 hour and 45 minutes), recording the birds present, human activity, and any interactions between people and birds, and;
- Vantage Point Counts (VPC), involving quick, 'snapshot', counts recording the number of birds present and the distribution of human activity.

2.7 Core Counts provide detailed data relating to the responses of birds and prolonged observation across a fixed recording area. This approach builds on the Exe Disturbance Study and has been developed in line with a series of studies across the UK. Each count involves the following elements:

- Two counts of birds, one count at the start and one at the end of the survey period;
- A diary of all potential disturbance events observed during the 1 hour and 45 minutes following the first count;
- A record of the response of selected bird species to each of the potential disturbance events recorded in the 'diary', including counts of birds present and the number of birds flushed, etc., and;
- Any additional information.

2.8 VPC are much quicker and easier to carry out, cover a much wider area, and are undertaken much more frequently than the Core Counts. The VPC therefore provide the best indication of how frequently there are people inside the refuges. These consisted of 'snapshot' counts, each lasting around 15 minutes, whereby a wide expanse of the estuary was scanned with binoculars from pre-selected vantage points, and a count made of any people, activities, and birds present.

These counts are simple to complete and provide an easily replicated approach which meant that the Habitat Mitigation Officers were able to undertake these counts, providing supplementary data to the Core Counts.

2.9 As shown in Appendix C, four survey locations were used – two at Exmouth and two at Dawlish Warren. To ensure coverage across a range of conditions and circumstances, visits were timed to coincide, as far as possible, with the following:

- A range of weather conditions, including some dates with strong winds when water sports and sailing are likely to take place;
- Any particular events that were known to be taking place;
- Weekends and weekdays and different times of day, and;
- A range of tide states.

2.10 Survey effort from Feb 2018 to March 2019 was spread across months, with a total of 52 Core Counts (representing 91 hours of direct observation) and 123 VPC (representing a further 30 hours) – a total of 121 hours of survey.

2.11 Monitoring is ongoing and it is important to note that the data and results in the first annual report are just the initial part of a larger body of counts to be undertaken over a three year period.

### **3. Monitoring results – Year One summary**

3.1 Key findings from the first annual report are as follows:

- High numbers of birds were present in and around both refuges.
- The Core Counts from Exmouth were highest in the autumn/early winter (when the refuge was active) while this was less apparent at Dawlish, providing support for the different time periods that the refuges are active.
- Vantage Point Count data showed a significant difference in the proportion of waders and of wildfowl recorded inside the Exmouth refuge, compared to outside the refuge, during the post-refuge period. There was a greater proportion of birds present inside the refuge when it was active. For the Dawlish refuge, differences were not so clear and suggest a higher proportion of waders inside the refuge during the pre-refuge period, but the opposite for wildfowl.
- In terms of recreational use, the Exmouth side was much busier, with many more dog walkers, walkers, and watersports recorded at the Exmouth Duck Pond in particular.
- There was no evidence that the refuges are deterring visitors to the respective areas in general, for example the Core Count data showed watersports and dog walkers using the general Duck Pond area (i.e. including areas outside the refuge) when the refuge was active.
- Vantage Point Count data showed recreational use inside the refuges, particularly Exmouth, when the refuge was not active; this then dropped to a low level when the refuge was active, suggesting that people were changing their behaviour and recognising the refuges.
- There were relatively few times that people were recorded within the refuges while they were active, but incursions were recorded.

- In terms of overall number of disturbance events, dog walkers and bait diggers accounted for most of the incursions into the refuge at Exmouth (but kitesurfers, windsurfers, walkers and a RIB were also recorded).
- Walkers, bird watchers, crab tilers and shore fishing were the main incursions into the refuge at Dawlish.
- Observations of bird responses to activities taking place within the refuges recorded a total of 66 waders and 696 wildfowl flushed, during the period from 15 September when the refuges were active.
- Comparison of data from different time windows, when the refuges were active or not suggests there is a higher likelihood of a behavioural response occurring when the refuges are active, with higher proportions of birds taking flight or responding.

3.2 In summary, the data therefore indicates that the refuges do support significant numbers of birds and that incursions into the refuges (when they are active) are relatively infrequent, but when they do occur they can have a marked impact in terms of a behavioural response from the birds present.

3.3 Further monitoring will highlight whether there are changes in the number of incursions over time and whether there are shifts in how the areas are used by birds over time.

3.4 As is true of all the mitigation measures outlined in the South East Devon European Site Mitigation Strategy, the wildlife refuges should be continue to be viewed in the context of a wider, interconnected and coordinated approach. This includes a broad range of educational resources via the Habitat Mitigation Officers, leaflets, signage and interpretation. Other projects promote responsible dog ownership and behaviour across the whole region and significant areas of countryside have been (and will be) brought forward as Suitable Alternative Natural Green Space (SANGS). Monitoring is integral to the strategy, is progressing according to the approved annual and 5yr business plans and is appropriately designed to focus on the combined effects of all the measures as part of the larger whole.

**Neil Harris**  
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**South East Devon**  
**Habitat Regulations**  
**Executive Committee**  
**July 2019**

**Natural England comment:**

Natural England welcomes this first annual monitoring report and supports the recommendations made.

The initial results indicate that the wildlife refuges are effective in reducing disturbance within those areas.