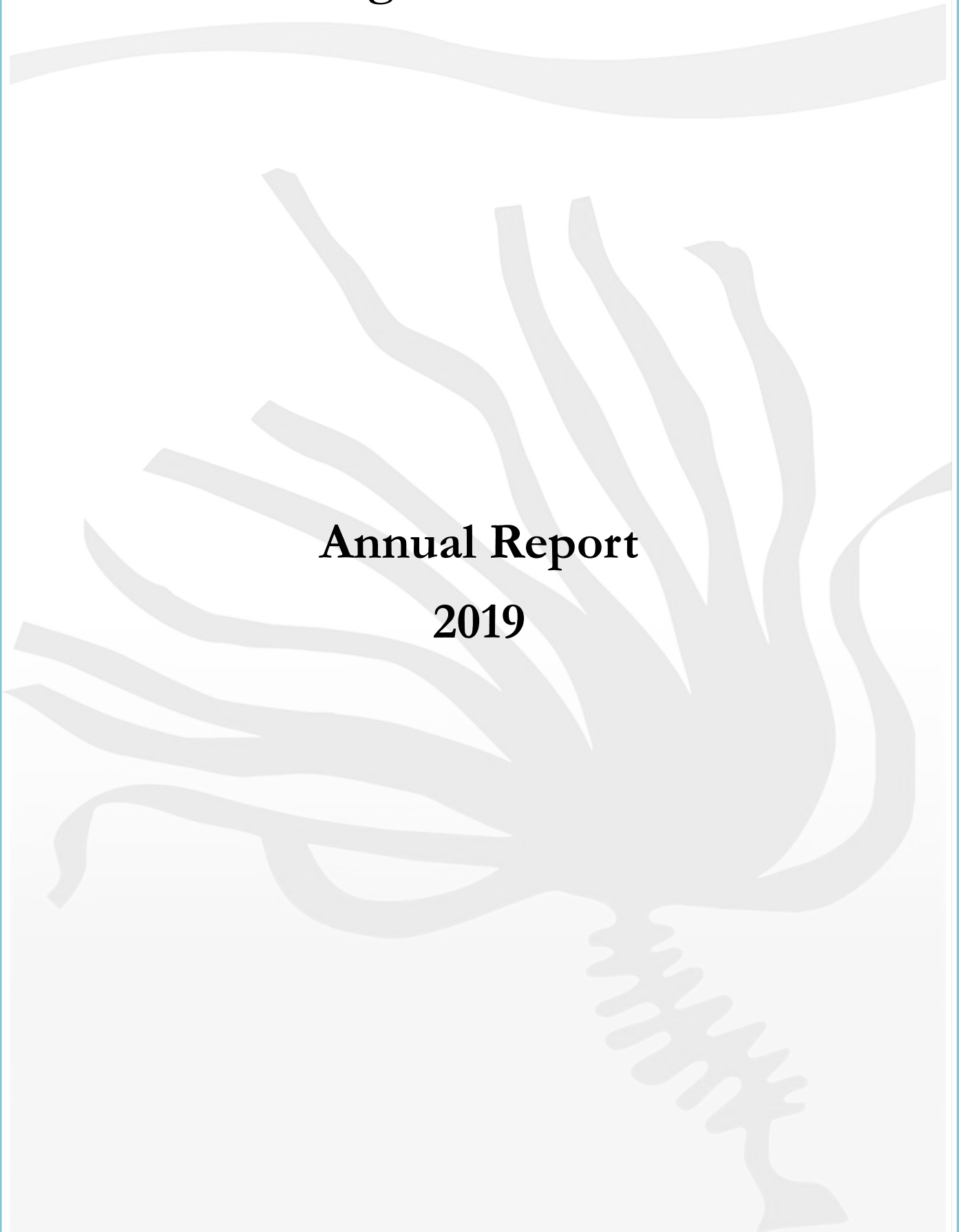


Flamborough Head European Marine Site Management Scheme

**Annual Report
2019**





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Introduction

This report forms part of the Flamborough Head European Marine Site (EMS) Management Scheme’s annual review and details the progress of the Management Scheme’s work throughout 2019. Summaries and actions progressed by the Project Officer on behalf of the Management Scheme, in conjunction with updates provided by the Relevant Authorities and key partners, have informed this report.

During 2019, two MSc students conducted research projects on behalf of the Management Scheme, the results of which offer opportunities for improving management of the site, particularly in relation to disturbance caused by recreational activities. Reducing negative impacts of such activities on the EMS continues to be a priority for the Management Scheme.

This year, the National Lottery Heritage Fund awarded a grant to the Management Scheme to support the development of a new regional partnership for the Yorkshire coast. The Yorkshire Marine Nature Partnership Development Project has begun to explore integrated, collaborative and holistic management of Yorkshire’s marine and coastal environment, in close partnership with the Management Scheme and other stakeholders.

Condition Assessments and Conservation Advice

This work supports Aims 1 and 2 of the Management Scheme

During September, Natural England carried out additional monitoring of the intertidal habitats around Flamborough, following the 2018 biotope mapping surveys. Once again, this work was supported by the Management Scheme Project Officer and intertidal mapping experts from Newcastle University.

Final results of this monitoring will be available in 2020, although it is expected to confirm that the reef feature of the Special Area of Conservation (SAC) supports a diverse and healthy ecosystem.



A blue-rayed limpet on kelp

Utilising the extremely low tides at the start of September, survey teams were able to explore the upper reaches of Flamborough’s kelp forest, which is recognised as one of the most biodiverse habitats in the world. Kelp is an important source of food and shelter for many animals, including the impressive blue-rayed limpet (left). It is also an important habitat for helping to tackle the impacts of climate change, as it absorbs carbon from the atmosphere, as rainforests do on land.

Surveys were also carried out around Sewerby, where the shore is less dynamic but still an important area for seaweeds and species such as the breadcrumb sponge (below).

Conservation Advice for both the SAC and the Special Protection Area (SPA) have now been published by Natural England. This package offers site managers and other interested parties guidance about what activities could negatively affect the conservation features of the protected area, along with general management information.



A breadcrumb sponge in the intertidal zone at Sewerby

All Conservation Advice packages can be viewed [online](#).

Seabird Monitoring Programme

This work supports Aims 1, 2 and 5 of the Management Scheme

The RSPB continued their seabird productivity monitoring around the SPA this year, on behalf of Natural England, providing an essential insight into the health and resilience of our colony. The relatively mild winter, followed by a cold snap in spring, saw the birds arriving in large numbers early in the season, before heading back out again and returning throughout April. These frequent movements unfortunately meant that the pre-season puffin count could not be carried out. Nevertheless, all other productivity monitoring was completed, with the first egg (gannet) spotted on 16th April.

Whilst many species are continuing to display steady productivity overall, herring gulls and kittiwakes, in particular, demonstrated low productivity yet again. A summary of the colony's productivity is provided below:

- Kittiwake productivity at Flamborough and Bempton was recorded at 0.55 chicks per apparently occupied nest, which is similar to the last three years but considerably lower than when the current monitoring programme began in 2009. Despite good weather over the summer months, there were anecdotal reports of kittiwakes not attempting to breed or of the majority of nests only fledging a single chick (nests often produce two or even three chicks).
- Gannets produced an average of 0.74 fledged chicks per nest this year, which is slightly lower than 2018 though the population overall remains strong. There were reports of birds not attempting to breed and of chicks being left unattended on the nest, which mirrors similar reports in the kittiwake colony.
- Guillemot productivity was slightly higher than 2018 (0.66 in 2019, 0.62 in 2018), whilst razorbill productivity continued to recover from a low of 0.56 in 2017 (0.63 in 2019, 0.72 in 2018). Despite these fluctuations, the auk productivities are thought to be around the national average.
- Fulmars demonstrated a relatively strong productivity, with 0.63 chicks per apparently occupied nest. However, there was another year of productivity declines in the herring gull colony.



Kittiwake and chick at North Landing, Flamborough

Following on from work in 2018, the RSPB continued the kittiwake colour ringing project at Flamborough, with an additional 60 birds ringed this year, bringing the total sample to 111. During 2019, a significant number of birds were re-sighted (43 of the 51 originally rung birds); it is hoped that this good level of return will continue.

In partnership with Orsted, Natural England and the RSPB, the Management Scheme continues to engage in discussions to enhance and improve monitoring of the Flamborough

and Filey Coast seabird colony. New projects to continue kittiwake and gannet tracking in the North Sea during the breeding season are being explored, to help inform offshore developments. Additionally, the Management Scheme is leading a working group to explore how data can be collected on seabird behaviour and presence around the cliffs during winter. This research will help to improve our understanding of how the colony utilises the area all year round.

Recreational Disturbance - Voluntary Agreement Developments

This work supports Aims 2 and 3 of the Management Scheme

All of the voluntary codes of conduct remain active and unchanged. The Management Scheme is continuing to work with user groups, regulators and conservation organisations to promote responsible use of the site and explore how alternative management methods could be utilised to encourage more awareness of the site’s sensitivities.

Recreational Disturbance - Monitoring Project

This work supports Aims 2 and 3 of the Management Scheme

The first report of the 2019 season was received on the 21st March from an ad-hoc report of a motorised boat. In total 243 activities were observed around the EMS, 217 of those were disturbance events, as shown in Table 1.

Table 1: Summary of 2019 Activities and Disturbance

Total Number of Reports	Total Number of Disturbances	% High-Moderate Disturbance	% Slight-No Disturbance	% No Disturbance Level Recorded
243	217	44%	45%	11%

Of the activities reported, motorised boats were the most frequently observed with 122 total reports in 2019, as shown in the graph below. Personal watercraft (PWC or Jet Ski) activity was recorded 45 times, whilst canoes and kayaks were recorded 59 times. Reports of motorised boats decreased in 2019 compared to 2018, however, reports of high-moderate disturbance events increased (20% in 2018, 50% in 2019). Reports of high-moderate disturbance from PWCs also increased from 44% in 2018 to 62% in 2019. Again, reports of canoe and kayak activities increased, with 59 total reports in 2019, compared to 20 total reports in 2018, as shown in Figure 1. The higher number of reports are likely due to more intensive surveys taking place in 2019, as part of the MSc research project. It should be noted, however that the overall number of reports causing high-moderate disturbance has decreased since 2018. In 2018, 61% of activities reported caused high-moderate disturbance, compared to 44% of activities recorded in 2019.

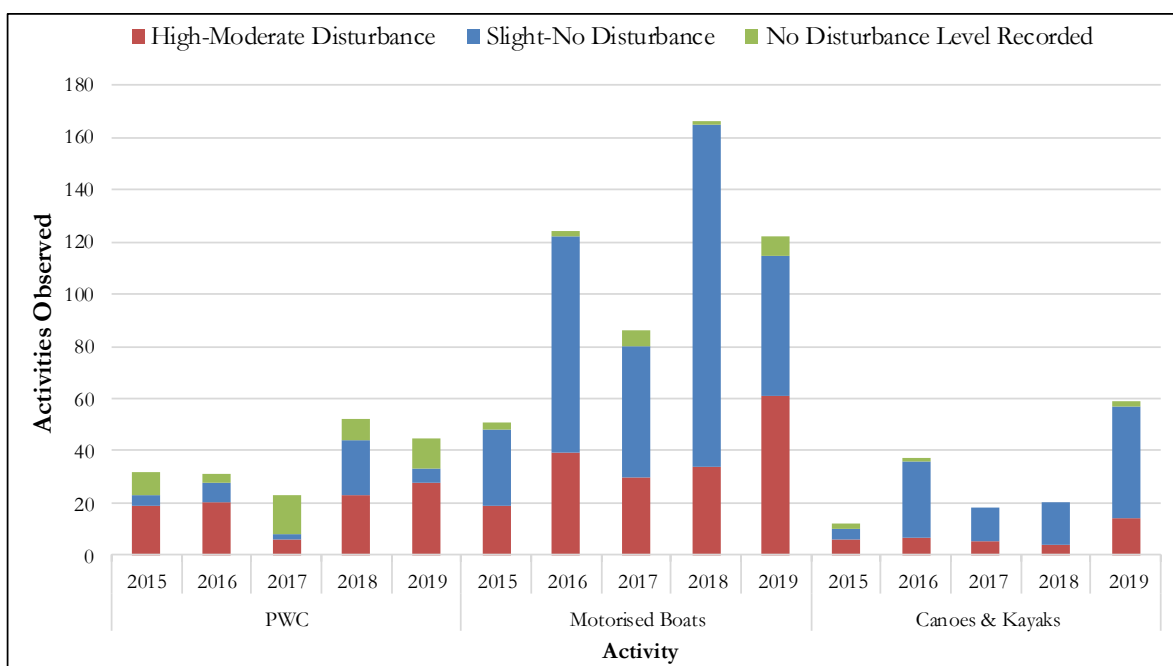


Figure 1: Levels of Disturbance Events for the Three Most Reported Activities 2015-2019

MSc Student Report - Recreational Disturbance

This work supports Aims 2 and 3 of the Management Scheme

In 2019, an MSc student carried out research on behalf of the Management Scheme to further explore the impact of recreational disturbance on the seabird colony. The aim of the study was to understand whether a measure of seabird energy expenditure could be used to indicate the level of impact caused by recreational disturbance. The recreational activity monitoring methodology was amended, allowing more information to be collected on seabird flight times in response to disturbance events. This data was then used to estimate energetic cost of flight which allowed the potential impact of recreational activities to be quantified.



Gannets at Bempton Cliffs

Results

- Of the total 347 human recreational activities recorded across three sites at Flamborough Head, 79 were reported as causing a disturbance. The majority of potential disturbances (91%) were caused by marine-based activities.
- PWCs caused a significantly higher mean response code in comparison to other activities. PWCs also prompted significantly higher mean flight times across all species.
- Gannets were found to have significantly higher energetic losses than any other species, losing on average 15.2 kJ per disturbance event.
- Across all disturbance events recorded, kittiwakes incurred a significantly higher mean of energetic loss (6.3 kJ) than any other species. This could be due to the widespread distribution of kittiwakes across the site, increasing the likelihood of disturbance.

The energetic costs of flight should be considered as conservative estimations of the actual figure, as a number of parameters and behavioural responses could not be measured. Furthermore, data was collected in a limited time period across July and August, only.



Razorbill and Chick, North Landing

This study highlights the potential impacts of recreational disturbance within the EMS, and it identifies motorised vessels and PWCs as the most common and most severe form of disturbance. Furthermore, this study demonstrates that energy expenditure of seabirds could be used to illustrate impacts of disturbance on the seabird colony. Although the results of this research indicate that disturbance responses do not illicit a significant energy loss, if considered cumulatively with disturbance across the season and wider pressures, the additional stress of recreational activities could prove to be substantial.

MSc Student Report - MPA Management Effectiveness

This work supports Aims 2 and 3 of the Management Scheme

Utilising a management effectiveness tool developed by the UK Seas Project (led by WWF), a second MSc student examined the management of two different marine protected areas (MPAs): Flamborough Head EMS and the Runswick Bay Marine Conservation Zone (MCZ). The UK Seas Project developed a list of 38 criteria associated with well-managed status of MPAs, structured into a ‘compass’ tool. These criteria were translated into a survey which was then adapted to suit the two Yorkshire coast MPAs. Responses to the survey were gathered from MPA managers and other interested parties, the data was then analysed to calculate an average ‘management score’ for each of the criteria. The results were grouped onto the compass template in line with the three key phases of MPA management: creation phase; pioneer phase and self-sufficiency phase. An average management effectiveness score was calculated as a percentage for each site.

Results

- 23 responses were received; eight responses for Runswick Bay and 15 for the EMS.
- An overall management effectiveness score of 35% was calculated for Runswick Bay MCZ which is on the boundary of creation and pioneer phase. Due to a high level of ‘unsure’ responses and the recent designation of the MCZ, Runswick Bay was assigned to the creation phase of management.
- Flamborough Head EMS had an overall management score of 63% meaning it was assigned to the pioneer phase. From the responses to the survey, it was clear that stakeholders were more aware of the site’s management.

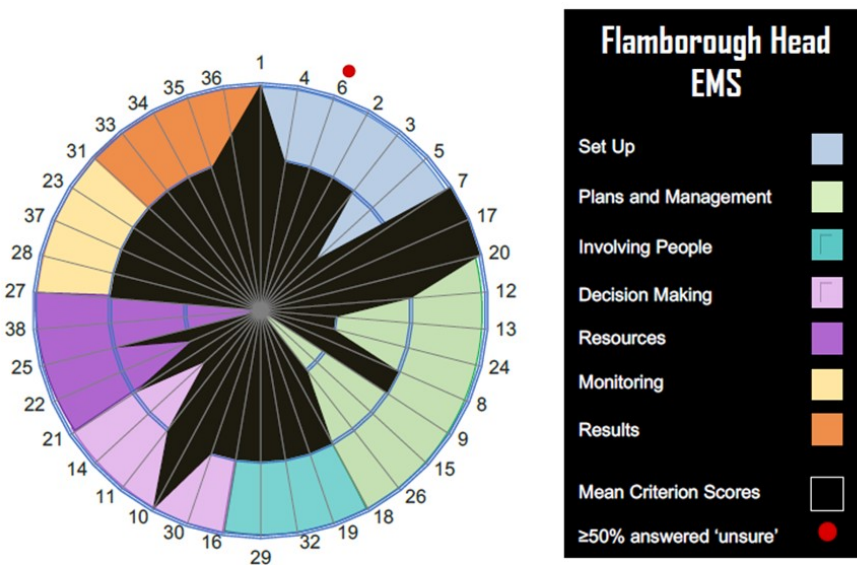


Figure 10 Completed Compass for Flamborough Head European Marine Site. Numbers around the Compass circumference refer to management criterion (Table 1). Criteria are grouped into the seven management themes, with colour coding system in Table 6 applied to the Compass graphic. A red dot is plotted besides criteria when $\geq 50\%$ of respondents answered ‘unsure’ for a criteria’s corresponding question.

There was only a small number of stakeholders with the knowledge required to complete the survey, which meant there was a small sample size and the potential for bias. The higher overall management effectiveness score given to the EMS may be indicative of the duration of the site’s designation, along with the support and resources of the Management Scheme and a dedicated Project

Officer. The research found that, to progress this site to the self-sufficiency phase, there is a need to work towards establishing long-term sustainable funding. In the case of Runswick Bay, it was suggested that resources should be focussed towards establishing plans for future management and assessing the condition of species and habitats within the site.

The compass tool could be used by the Management Scheme periodically as an integral part of management implementation, however, amendments to specific questions may be needed to gain more relevant information and ensure responses are valuable. This research has shown that the compass can generate useful data that may support MPA managers in measuring management progression and prioritising future actions.

Environmental Incident Wildlife Response Plan

This work supports Aims 2, 3, 5 and 6 of the Management Scheme

The Environmental Incident Wildlife Response Plan (EIWR) is a strategic plan for responding to environmental incidents affecting wildlife along the Scarborough to Bridlington coastline. The plan aims to consolidate and coordinate local knowledge, expertise and resources to ensure an efficient, effective and prompt response to wildlife emergency.

On 27th November, an exercise was run as a 'live' incident in response to reports of oiled and stranded auks on the beaches around Scarborough South Bay. To prepare for the training, registered volunteers were informed that an event would be happening, but had been given no other information and were asked to respond as they would in an emergency.

A Beach Head Collection Point (BHCP) was established at Scarborough Sea Life Centre, where the Wildlife Response Management Group met and were briefed on the 'incident'. Collectively, the Management Group decided to call in volunteers to conduct surveys of the local beaches, in order to gather further information about the scale and severity of the stranded wildlife. In total, eight volunteers were able to respond, despite the adverse weather conditions.



Volunteers conducted surveys along North Bay, searching the beach for any live-stranded or deceased wildlife.

Working in teams, the volunteers conducted surveys of the beach, collecting information about any deceased wildlife and calling in to the BHCP to report any live-stranded animals. To replicate a real event as much as possible, laminated images of auks had been strategically placed along the beach with models of stranded marine mammals supplied by the British Divers Marine Life Rescue.



Volunteers report the 'stranding' of a dolphin on Scarborough North Bay

Following the surveys, volunteers and the Management Group held a de-briefing session where a number of amendments and improvements to the plan, and the response procedures were recommended. Overall the training was a success and a welcome opportunity to practice emergency response procedures. On 30th November, a supplementary indoor training session allowed existing volunteers to refresh their knowledge and introduced new volunteers to the response plan. As a result of these training events there are now 35 volunteers and 7 members of staff from local organisations who are trained in environmental response.



Yorkshire Marine Nature Partnership Development Project

Following a successful bid to the National Lottery Heritage Fund (NLHF), the Management Scheme were awarded £95,300 to work towards a new partnership for the Yorkshire coast. The funding, hosted and facilitated by East Riding of Yorkshire Council, enabled the Yorkshire Marine Nature Partnership (YMNP) Development Project to be established in September. The EMS Project Officer was seconded into a new role as the Development Officer for the YMNP to support this new phase of partnership working in the region.

In close collaboration with a wide range of partners, the YMNP Development Project has established a Steering Group, Chaired by the North York Moors National Park Authority, to drive coordinated action and explore how a regional partnership can support Yorkshire's marine and coastal environment. Over the next 18 months, the Steering Group will explore sustainable funding and governance options for the new partnership, work collaboratively to highlight the importance of marine ecosystems, engage in regional and national environmental policy discussions and, look at how inshore ecological water quality could be better integrated into wider marine management.

Once the YMNP is fully established, it is expected that management of MPAs will be integrated into the regional partnership. This will support more holistic care and understanding of Yorkshire's marine and coastal environment, whilst providing MPAs with opportunities to link with other projects and areas of activity, such as the natural capital agenda, health and wellbeing initiatives and, ecosystem-scale research. Integrating MPA management into the wider partnership will support the protection afforded to these areas, encourage consistent messaging across the region, and could identify sustainable finance options to secure the long-term effectiveness of the MPA network.

Priorities for 2020

A new Project Officer was recruited in early 2020, to support the Relevant Authorities' Group and continue to progress management objectives for the site. The Project Officer will be working closely with the YMNP Development Officer to support coordinated activities and facilitate proper integration between the Management Scheme and the regional partnership, in the long-term.

Due to the restrictions on movement in response to the Covid-19 pandemic, the Management Scheme, and many of its wider partners, will be working remotely for the foreseeable future. Furthermore, many of the research and engagement activities planned for 2020 have been postponed or reduced to enable social distancing. However, the Management Scheme will continue to progress the 2016 - 2021 Action Plan and maintain a presence on site, wherever possible.

Whilst there may be reduced reporting of recreational disturbance issues in 2020, it is important that communication and engagement between site managers and user groups remains high. As such, the Project Officer will continue to work with the Marine Management Organisation, Natural England and other partners to explore future management initiatives and support research into the possible impacts of recreational activities on the seabird colony.

Following a referendum on the 23rd June 2016, the UK voted to leave the European Union. As of the 31st January 2020, the UK is no longer a member of the EU. As Flamborough Head EMS is based on a number of European and national pieces of legislation, there is uncertainty about how this might change nature conservation in England and how the emerging Environment Bill may impact MPAs. Despite this, all designations and management measures remain in place until legislation is altered or amended accordingly and new guidance for the site is published by the government.

Aims of the Management Scheme

Aim 1: Ensure no management measures or unregulated activities adversely impact the conservation features, through regular condition assessments and implementation of Habitats Directive procedures.

Aim 2: Work to maintain and improve protection of the conservation features through the sharing of appropriate scientific research and site specific information.

Aim 3: In order to support the work of the Management Scheme, raise public awareness about the site's importance and support sustainable recreation and tourism practices.

Aim 4: Monitor both recreational and commercial fishing activities, ensure all relevant permits are observed and support sustainable practices, whilst engaging with the local fishing community to increase environmental awareness.

Aim 5: Ensure that any non-fishing commercial activity within or adjacent to the EMS does not negatively affect the conservation features, and work to reduce the risk of marine pollution to the site.

Aim 6: Appropriately manage the marine environment through the monitoring of consented discharges, achieving water quality standards and ensuring all coastal environmental incidents are dealt with effectively, whilst creating a safe environment for recreational and commercial users.

Aim 7: Ensure that activities of the Management Scheme promote the conservation of seascape and landscape character in a way which is compatible with safe maritime practices and the values of sustainable development.



For further information please contact the Flamborough Project Officer at:

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Additional details on the management of this internationally-important area can also be found in the 2016-2021 Flamborough Head European Marine Site Management Plan which can be downloaded at:

www.flamboroughheadsac.org.uk