

REVIEW AND RECOMMENDATIONS OF THE SWALE, MILTON CREEK, MEDWAY ESTUARY AND MARSHES MANAGEMENT PLAN

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Introduction

The habitat and flood management plan for Swale Borough Council was evaluated for these sites. The sites were The Swale, Milton Creek, Medway Estuary and Marshes. An overall general habitat management plan was created as these sites are close to one another, if one site has an issue then this change could cause issues to the sites.

This habitat management plan is a large document, with several management and mitigation points; however, they give little details on these plans, this could be due to having such a large site.

The first site is The Swale which is in the North of Kent, in the Southeast of England, the site is approximately 16 mls long with a width of half a mile to 1 and a half miles (Wilson, 1872). The Swale separates the Isle of Sheppey from the Mainland (Kent Life, 2021). Whitstable Bay sits at one in the East and the Medway Estuary sits at the other end in the West (Kent Life, 2021).

The next site is the Medway Estuary and Marshes is in the Southeast part of England, which is approximately 18.33Sm2 (Albert, 2009; Setia, 2010; Tikkanen, 2011). The River Medway stretches for 70 miles, starting at a small spring in Turners Hill (Ross, 2003) in Sussex, travelling through Kent, until it merges with the Thames Estuary and North Sea (Kiddle Encyclopaedia, 2020).

The last site is Milton Creek County Park, this site has a range of different habitats and it situated on 128 acres of former landfill site (Milton Creek Trust, 2021). Although this site has a SPA designation the was given due to species from the other sites some time being found on this site (Heaps, 2015).

Medway Estuary (SPA/ Ramsar) Sites

Current Management Plan :

- Sit and Wait (Disturbance due to a development of a house estate, once this stop the birds populations is expected to rise by 15% from the decline in current figures (Heap, 2015)
- Have a dog leashed rule as dogs that are not leashed has caused a lot of disturbance with the wildlife and environment of these designated sites (Heap, 2015)
- A leaflet will be created for the boat owners to show the Medway and Swale bird colonies and high tide roost with ways to avoid disturbing them, with more displays around sites for pedestrians (Heap, 2015)

The current Status:

In regards to the 'sit and wait' method this seems a little ridicules that a development was given permission to build in a location close enough to a designated site that would led to a decline in population but also that this method is being used when the populations and species gave the site the status. And the council and developer have not considered the noise population that will be created when people move and live in the new development. This method could lead to lose of species and possible the status of the site. This development is still in progress of being built so the author can only speculate that the bird population numbers are stably or still decreasing. Only once the project is finished will well see the impact, and then a more appropriate management plan could be created.

No rule or restriction to dogs in the area. However, a report from 2013 stated the benefits of having the restrictions on dogs and a strategy was made (Liley and Underhill-Day, 2013); but has yet to be put in place too. This shows that this management is not being followed through with.

A leaflet has been created for the area that shows the different bird colonies and where the designated sites are. This can be printed off online. In leaflet they do mention about keep dogs under control but there is no mention of keep dogs on leads. The leaflet is to the point, nicely laid out and eye catching. The leaflet was created by North Kent Birdwise group in May 2020. (the link can be found in the appendices as appendix 1).

Overall with the management is lacking and could do with a great deal more detail and thought. The development situation was questionable and unfortunately little can be done now; the dog rules and restriction that keeps being mentioned seems to be consistently discussed but no action or plan of introducing has had action taken. The leaflet was done has suggested in the management plan and looks brilliant.

Medway Estuary (SPA/Ramsar) Sites Recommendations :

As stated before the development location should have been considered more in regard to the impact and what problems would arise after the project was completed. The author feel that little management could be done to rectify the impact of present and future disturbance.

However there have been studies that show the present of dog can cause less biodiversity and decrease in population.

A paper published in 2019, investigated biodiversity in Bhutan on the Bumdeling Ramsar site, which is located in the eastern region (Norbu et al., 2019). The study found that there was less wildlife in areas that had domestic or stray dogs, and they advised that restrictions be placed on dogs entering these types of sites (Norbu et al., 2019).

Unable to find a case study where dogs had be restricted, many studies did find that where dogs were present or used by dog there was a decrease in population and biodiversity.

Recommend that a rule is created that all dogs must remain leashed in while in these sites and that fines and be given to those who don't, if improvement is seen in biodiversity and population then perhaps a temporary or permanent band to dogs. Many studies suggest this would be a good strategy to implement into management plans for designated sites.

Wet Grassland Recommendations:

A study carried out by the group EuroSAP, which is group of different countries and organisations, such as the European Commission, Africa-Eurasian and many more (Leyrer, 2017); showed that by chaning mowing regimes, giving nest protection to nesting birds, predator control, and creating more water availability had a successful rate of 40-60% on occasions that these changes were made in wet grasslands (Leyrer, 2017). This experiment provide to be successful, however, in Europe the breeding waders in grasslands continue to drop; they suggest that bringing this management structure over to be included in more management plans could have a great benefit on the populations (Leyrer, 2017).

Some studies have shown that using different live stock for grazing grassland can be beneficial (appendix 2), some state that using different animals for grazing can create a good environment for wildlife while others have shown that some livestock, such as cattle can cause more damage while sheep and goats are okay (appendix 3) and other found that all livestock can be damaging to areas.

Each study was in a different country, grassland habitat and parameters such as soil, grass type etc. For this site the study carried out by EuroSAP has good potential for this site, however, each sites is different and could be a trial and error with finding what works.

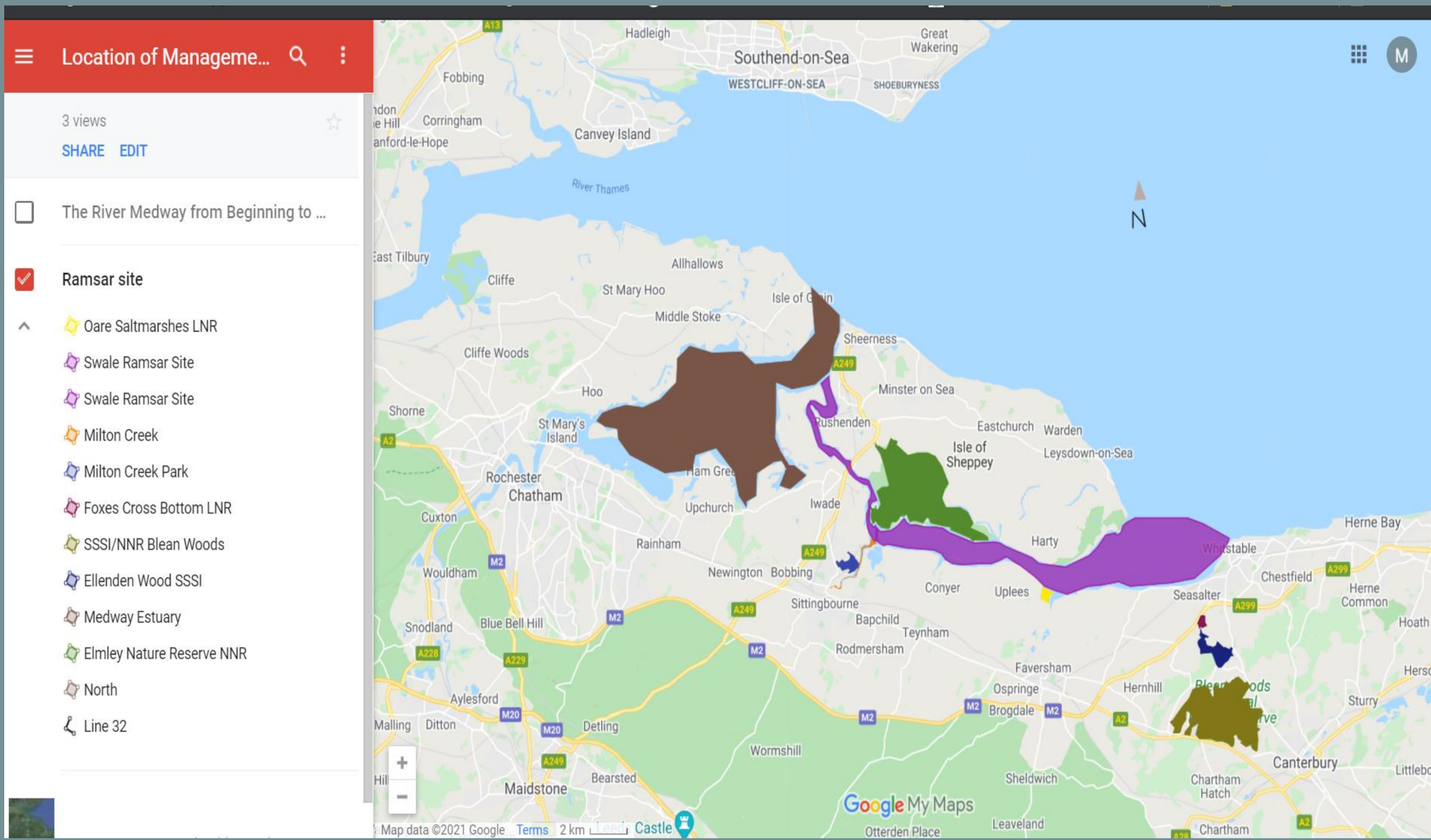


Figure 1: GIS Google My Maps, showing the sites within the Habitat Management Plan

Saltmarshes Recommendations:

In regards to recommendations for the management of the site, there have been a number of studies carried out that show ever-increasing evidence that by reducing physical stress, enhancing resources or sometimes both in some case can have a positive impact on the saltmarsh (Derksen-Hooijberg et al., 2017). The study tested if interspecific interactions between the different species could help to improve the coastal ecosystem and have a restoring success, this study was carried out in the south-eastern United States (US) Marsh (Derksen-Hooijberg et al., 2017).

The study tested this theory by placing different species together in different parts of the saltmarsh (Derksen-Hooijberg et al., 2017). When Cordgrass and mussels were placed together in the mudflat there was a 45% increase in cordgrass, unlike when cordgrass were placed by themselves; the cordgrass with mussels showed a 53% increase in population from being placed by its self (Derksen-Hooijberg et al., 2017).

The introduction and movement of interspecific interactions between species could allow an increase in biodiversity which could bring more bird species into the area, while also allowing the other species populations to grow. Suggestion is that the plants in the location are examined and found which ones could benefit other species and recommends using Derksen-Hooijberg et al., 2017 investigation to assist in combining two species into one environment.



Marsh Harrier (*Circus aeruginosus*)

Avocet (*Recurvirostra avosetta*)

Mediterranean Gull (*Larus melanocephalus*)

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Wet Grassland

Current Management Plan:

- The different sites with in area will benefit from using sheep to graze the lands, this will help with maintenance (Heap, 2015)
- Sediment will be tested often with contaminated soil removed as not to enter the estuarine system and have an impact on designated sites (Heap, 2015)
- To create and maintain biodiversity the habitat corridors and linking routes will be protected that connect BAP species and designated sites (AECOM, 2016).

The Current Status:

The management plan for this site does not appear to have had action taken at this current time. However, there has been discussion on whether sheep would be the best animal to use for grazing or if cattle would be better. One of the management plans was only created last year which could be a reason why no action has been taken, however the other was created in 2015 which suggest that there could have been some action take.

Saltmarshes

The Saltmarshes current Management Plan:

- The saltmarshes within these sites will benefit from grazing by livestock to maintain the land (Heap, 2015)
- The monitoring and maintaining of these sites will be watched closely to encourage birds to breed and live on these sites (AECOM, 2016)

The Current Status:

There appears to be no action taken on any of the management plans put in place to care for the local saltmarshes. These plans have been in place since 2015-2016, which means that there should be some sort of action taken or explanation as to why there has not been, but the author could not find any information.

Appendices:

Appendix 1: <https://northkent.birdwise.org.uk/wp-content/uploads/2020/05/New-Bird-Wise-Leaflet.pdf>

Appendix 2: [file:///C:/Users/Marie/Downloads/in17.0\[1\].pdf](file:///C:/Users/Marie/Downloads/in17.0[1].pdf)

Appendix 3: <https://www.sciencedirect.com/science/article/pii/S2405844017340094>