

URN: 21-063

Subject: Beach Cleansing and Marram Grass

Report to: Environment Committee 25th November 2021

Report by: James Wilson – Head of Environmental Services

SUBJECT MATTER

This report provides an overview of the factors associated with both beach cleansing and beach management for Great Yarmouth. It gives members the options for the future management of the beach as a tourist beach and to prevent the advance of the marram grass, other flora and dunes.

RECOMMENDATIONS

That Members:

- Agree that the Central beach be managed as a tourist beach and measures are used to remove grass growth on an annual basis.
- Agree that the North Beach from Britannia pier to the Northern end of the Euston Road car park is designated a tourist beach and the ingress of the Marram and other grass is managed on an annual basis.

1. Introduction

- 1.1. Great Yarmouth beach is one of the few beaches that continues to be a growing beach, as in sand is deposited on the beach and it is not prone to erosion. Whilst this is great for the protection of the coastline it does mean that the beach has slowly been colonised with sand dunes and their associated flora from the North and the South.
- 1.2. Over the past few years this has led to a reduction in the Northern beach area that is clear sand and has also seen some grass and other vegetation establishing on the main Central beach.
- 1.3. The Council has received several concerns over the increasing amount of grass on both these areas of beach and has been asked by the environment committee to look at the options for the management of this grass to ensure a tourist beach remains.
- 1.4. Keeping the beach clean is a significant task every summer with the vast number of visitors the town sees. Over the past few years, the central beach has been raked with the idea this would assist with the collection of litter on the beaches. Recently this has been proven not to be the case, as such the environment committee also asked officers to investigate the options for the cleansing the beach for future years.

- 1.5. This report lays out the options for both the management of the marram and other grass associated with the development of sand dunes and beach cleansing options to ensure we can effectively cleanse the beach over the tourist season.

2. Marram and other grass

- 2.1 Within the past 18 months there has been some colonisation of the beach to the North of Britannia pier and more recently on the Central beach within Great Yarmouth of Fescue grass. It is still unclear why the Fescue grass has established itself in these areas, however it might be related to lack of disturbance of the beach and it becoming more stable due to the growing nature of the beach.
- 2.2 The Fescue grass is seen as a pioneer plant species as it possesses the ability to germinate and colonise open, often harsh environments such as a beach. Once a pioneer species establishes itself it will then lead to further ecological succession and establishment of other grass species such as Marram grass and other species such as Sea Holly.
- 2.3 There are also isolated sections of the beach in both North and Central area where Marram grass has established itself in small clumps and the initial stages of dune formation has begun.
- 2.4 The establishment of these species and the potential for dune formation will lead to the loss of large sections of tourist beach and one of the main attractions for the tourists visiting Great Yarmouth.
- 2.5 There are already large area of Marram grass and dunes to both the North and South of Great Yarmouth, both of which hold a number of environmental designations and are recognised for both their flora and fauna characteristics.



Sea Holly



Marram Grass



Fescue Grass

3 Designation of tourist beach area

- 3.1 The Council has not yet defined any areas of beach to manage as a tourist beach. In defining such areas there is an opportunity to maintain these areas in a way to prevent colonisation of plant species that would impact on the beaches being used as an open sandy beach.
- 3.2 To ensure we are both protecting the environmental designated areas to the North and the South and ensure we retain a tourist beach we would need to designate the areas that the Council will manage as a tourist beach.

- 3.3 The proposal is to manage the central beach between the Britannia Pier and the Wellington Pier ensuring that the beach is managed in such a way to ensure open sand and to prevent any grass growth in this area.
- 3.4 To the North of the Britannia pier the proposal is to manage a small section of this beach in the same manner with grass control in place with an approximate line level with the North boundary of the Euston Road public car park.
- 3.5 The area south of Wellington Pier would be left to colonise with no active management from the Council.
- 3.6 Officers have met with colleagues from Natural England, and they are comfortable with the proposal to designate and manage the beaches as proposed within this report. They reiterated as they have previously stated they would not want to see any interventions further North than we have proposed due to the already established dunes and their environmental importance and designations.
- 3.7 If the members are minded to designate these beaches to be managed as tourist beaches the Council would need to put in control measures to ensure the areas are managed to prevent plant colonisation. There is also an opportunity to keep these areas litter free. This would provide a large area of prime tourist beach for residents and visitors use for their enjoyment.



North Beach Area



Central Beach Area

4. Options for grass and weed control on tourist beach

4.1. Officer have looked at number of options for vegetation control and have also talked to both representatives from the National Trust, RSPB and Natural England to ensure that any proposal for control provide the smallest impact on the environment possible. A number of options are detailed below:

- Chemical control – This has been ruled out as the Council has a policy not to use this on soft landscapes and large-scale application in this environment is not sustainable.
- Saline Solution – Using a highly concentrated saline solution to kill the grasses. This is not often used and would need multiple applications to be successful and would have limited impact on the Marram Grass. Also applications of this nature would require favourable weather conditions as such would not be an effective or sustainable solution.
- Hot Water – using a hot water system called ‘Foamstream’ untested on large environments of this nature and would again need multiple applications and such has been ruled out as unsustainable.
- High Voltage – using system such as Xpower systems, this are very new to the UK and although might be effective on fescue grass it would not be effective on the Marram Grass and such as been ruled out.
- Physical removal – There are several options available to us that are low impact and would remove the grass with no application of any chemical or other techniques, these are as follows:
 - Ploughing or raking the beach on a regular basis to initially remove the fescue grass and to prevent its recolonisation.
 - Digging up the established clumps of marram grass on the beach and transporting this to either the North or South established Dunes and replanting into this landscape.
 - These techniques could be delivered by use of the existing beach rake with some upgrades, hiring or purchasing a plough and utilising the exiting GYBS tractor or the contractor who undertakes the sand level work each year.

4.2 Physical removal is the preferred method as all the others have a greater impact on the environment, will need multiple applications and all would be at significant cost to the Council on an annual basis to maintain. Due to the nature of the growth over the past 2 years the first years’ work would be quite significant, but it is envisaged this would be completed within existing budgets and using GYBS and other contractors already working on the beach as part of the beach levelling work.

5. Beach cleansing

- 5.1. The beach is currently cleansed daily from April to October this is predominately completed by hand picking the North and Central beach. In previous years a beach rake we used during the peak season, early in the mornings to assist with clearing the litter on the beach.
- 5.2. The beach raking was stopped during this season after a demonstration showed it was not picking up litter as intended and that the litter picking crews were still having to walk the beach to ensure it was clear of litter, therefore was not providing benefit for the time taken.
- 5.3. There have been unintended consequences of the lack of raking as the sand has not been disturbed, there is the possibility this has led to some additional grass colonisation in these areas.
- 5.4. With the proposed designation of the tourist beaches and their management, it is proposed that we undertake a trial to see the effectiveness of the beach rake at removing the fescue grass and undertake some upgrades to the rake that would enable it to pick up litter too. These are dependent on a trial of an upgrade to the existing rake. This would enable more effective beach cleaning and assist with the reducing the grass colonisation of the beach.

6. Financial Implications

- 6.1. Ruling out all other methods of control other than physical controls, the costs are likely to be minimal if these works are undertaken on an annual basis and as needed.
- 6.2. There will be some costs associated with the additional work of raking and removing the grass through mechanical methods, but this year's trial can be covered out of existing budgets.
- 6.3. Ongoing annual costs are dependent on the trials and how much time it takes to complete the mechanical removal; however, it is anticipated this would be undertaken as part of the work around sand levelling and iron curtain installation/removal, so again this would have minimal financial impact.

7. Risk Implications

- 7.1. If no preventive work is undertaken, then there is a risk that both of these areas of beach will be colonised, and a dune structure would form across these two areas of tourist beaches.
- 7.2. Any removal or management works would have to be agreed with Natural England and be undertaken at times where they do not impact on the existing nearby environmental designated sites and the breeding bird season.
- 7.3. There is a potential that this trial is not effective, and we will have to revisit what can be done. To understand this risk better a full review will be taken after the first trials have been implemented.

8. Legal Implications

- 8.1. Ensure all works would not be breach of any environmental legislation protecting both flora and fauna, this would be mitigated by undertaking the appropriate consultation and agreement with Natural England.

9. Conclusion

- 9.1. The best method for managing the grass in the two areas of beach shown in section 3 would be the use of mechanical intervention, both the ploughing and/or raking and the digging up and removal of larger clumps of Marram grass and other plants.
- 9.2. We would ensure where possible any Marram grass or other plant species, other than the Fescue grass was replanted to either the North or South established dune habitats.
- 9.3. This would allow the beach to be managed in a low impact way, preventing colonisation of the designated tourist beach areas with vegetation.
- 9.4. Defining these areas as per the recommendations will ensure we find the right balance between protecting the dune formations to the North and South of the beach and ensuring we retain a tourist beach for residents and visitors to use.

Area for consideration	Comment
Monitoring Officer Consultation:	None
Section 151 Officer Consultation:	None
Existing Council Policies:	Not using chemical treatment on open soft landscapes.
Financial Implications (including VAT and tax):	None – If further funding required, to be requested through additional report.
Legal Implications (including human rights):	None as areas proposed lie outside of environmental designation and methods are low impact.
Risk Implications:	Reputational risk with loss of beach.
Equality Issues/EQIA assessment:	None
Crime & Disorder:	None
Every Child Matters:	None