



**GREAT YARMOUTH**  
BOROUGH COUNCIL

# Environment Committee

**Date:** Thursday, 25 November 2021

**Time:** 18:30

**Venue:** Supper Room

**Address:** Town Hall, Hall Plain, Great Yarmouth, NR30 2QF

## AGENDA

Open to Public and Press

### **1 APOLOGIES FOR ABSENCE**

To receive any apologies for absence.

### **2 DECLARATIONS OF INTEREST**

You have a Disclosable Pecuniary Interest in a matter to be discussed if it relates to something on your Register of Interests form. You must declare the interest and leave the room while the matter is dealt with.

You have a Personal Interest in a matter to be discussed if it affects

- your well being or financial position
- that of your family or close friends
- that of a club or society in which you have a management role
- that of another public body of which you are a member to a greater extent than others in your ward.

You must declare a personal interest but can speak and vote on the matter.

Whenever you declare an interest you must say why the interest arises, so that it can be included in the minutes.

- |    |  |         |
|----|--|---------|
| 3  | <b><u>MINUTES</u></b>  | 4 - 7   |
|    | To confirm the minutes of the meeting held on the 29 September 2021.     |         |
| 4  | <b><u>FORWARD PLAN</u></b>   | 8 - 8   |
|    | Report attached.   |         |
| 5  | <b><u>AIR QUALITY REPORT 2020</u></b>                                    | 9 - 48  |
|    | Report attached.<br>A presentation will also be given at the meeting.    |         |
| 6  | <b><u>BEACH CLEANSING AND MARRAM GRASS REVIEW</u></b>                    | 49 - 54 |
|    | Report attached.   |         |
| 7  | <b><u>PROJECT FACET</u></b>  | 55 - 60 |
|    | Report attached.<br>A presentation will also be given at the meeting.    |         |
| 8  | <b><u>HOUSEHOLD WASTE AND RECYCLING COLLECTION REVIEW<br/>UPDATE</u></b> |         |
|    | Verbal report.   |         |
| 9  | <b><u>DEDICATION PLAQUES POLICY</u></b>                                  | 61 - 67 |
|    | Report attached.   |         |
| 10 | <b><u>PLAYGROUND AND OPEN SPACE AUDIT - UPDATE</u></b>                   | 68 - 75 |
|    | Report attached.   |         |
| 11 | <b><u>ANY OTHER BUSINESS</u></b>   |         |
|    | To consider any other business as may be determined by the               |         |

Chairman of the meeting as being of sufficient urgency to warrant consideration.



# Environment Committee

## Minutes

Wednesday, 29 September 2021 at 18:30

Present:

Councillor Wells (in the Chair): Councillors Annison, Bensly, Bird, Cameron, P Carpenter, Fairhead, D Hammond, Robinson-Payne, Waters-Bunn and B Wright

Also in attendance at the above meeting were:

Mrs K Blakemore (Strategic Director), Mr C Silverwood (Director of Operational Services), Mr J Wilson (Head of Environmental Services, Karen Thomas, Coastal Partnership East, Jennifer Hobson, Friends of Horsey Seals & Mrs T Bunn (Senior Democratic Services Officer).

### **1 APOLOGIES FOR ABSENCE**

Apologies for absence were received from Councillor Thompson.

### **2 DECLARATIONS OF INTEREST**

Councillor P Carpenter declared a personal interest in item 6 as she is Chairman of Coastal Partnership East, and a member of Broadland Futures Initiative and Water Resources East, all of which are mentioned in the report.

Councillor Bensly declared a personal personal interest in item 6 as he is a member of Coastal Partnership East and Water Resources East, all of which are mentioned in the report.

Councillor Fairhead declared a personal interest in item 6 as she is a member of the Internal Drainage Board which is mentioned in the report.



Councillor Cameron declared a personal interest in item 6 as she is a member of the Internal Drainage Board which is mentioned in the report.

However, in accordance with the Council's Constitution, they were allowed to both speak and vote on the matters.

### **3 MINUTES**

The minutes of the meeting held on 28 July were confirmed by assent.

### **4 FORWARD PLAN**

The Committee received and considered the Forward Plan.

The Chair advised that the Playground and Open Space review report would now be presented to the Environment Committee scheduled for 26 January 2022.

Members requested that an update and position statement in respect of the Playground and Open Space Review be brought to the next Environment Committee scheduled for 25 November 2021.

Agreed

### **5 FRIENDS OF HORSEY SEALS**

The Committee received a presentation from Jennifer Hobson, on behalf of the Friends of Horsey Seals. The presentation described the background and work undertaken in respect of the 'Keeping Seals safe from flying rings' awareness campaign.

Members expressed their thanks and support for this campaign and also highlighted the issues caused by other plastics and litter.

The Chair thanked Jennifer Hobson on behalf of the Committee for the work undertaken to protect the Seals.

Councillor Talbot suggested that a letter be sent to the Secretary of State for Environment, Food and Rural Affairs (Defra), (the Rt Hon George Eustice MP) asking that the sale of the flying rings be made illegal and highlighting the issues caused in respect of the seal population.

Committee members agreed to write to the Secretary of State.

### **6 NORFOLK STRATEGIC FLOODING ALLIANCE (NSFA) STRATEGY AND ACTION PLAN**

The Committee received a presentation from Karen Thomas (Coastal Partnership

East) which summarised the contents of the report.

Councillor P Carpenter expressed her thanks for the report which reflected the extensive knowledge and work undertaken on this matter.

Councillor Fairhead commented that she was pleased to note that this will be a mechanism to connect the different organisations involved in this work.

#### RESOLVED

1. To endorse the Norfolk Strategic Flooding Alliance Strategy and Action Plan as set out in Appendix 1 of the report.
2. To support a collaborative approach to flooding and water management in Norfolk.
3. To ensure that there continues to be a planned and resilient approach to flooding across the County.

Agreed

## **7 PROJECT FACET**

The Chair advised that this item has been deferred to the next Committee meeting.

## **8 GARDEN WASTE UPDATE**

The Committee received a presentation updating them on the Garden Waste Service Provision from the Head of Environmental Services.

He advised Committee that the service has been running for ten years with a 530% increase in subscribers since year 1. There is a fortnightly collection (with a two week break at Christmas). The collection tonnage to date this year is 2381 which is 550 tonnes up against last year.

Committee were given an overview of the service potential moving forward, currently there is around 75% take up. Any increase in current subscriptions would require a review in respect of collection resources.

There were two disruptions to service, (Covid) in March 2020 the service was suspended for six weeks and in February 2021 the service was suspended for four weeks due to snow / ice in both instances this was so that staff could support the core services.

The Head of Environmental Services reminded Committee of the government consultation undertaken earlier in the year on 'Consistency in Household and Business Recycling in England' this included a specific piece on garden waste which has the potential to significantly increase service costs.

The Committee discussed the information distributed in respect of waste bins and what is acceptable and how we promote this moving forward.

#### RESOLVED

- To note the update.

Agreed

## **9 HOUSEHOLD WASTE AND RECYCLING COLLECTION REVIEW**

The Committee received and considered the Household Waste and Recycling Collection - Round Review Update from the Director of Operational Services.

He briefed committee on the work undertaken to date and the new route implementation plan along with the communication plan in progress.

The Chair thanked the Director and his team for the quick turnaround of this significant piece of work.

Councillor Bensly asked for an update on options to reduce CO<sup>2</sup> emissions with particular reference to using alternative fuels. The Director of Operational Services advised that a group has been set up to specifically look at use of alternative fuels, particularly vegetable oils and is investigating options in respect of electric lifters.

Councillor Waters-Bunn asked if the publicity would be in the press prior to the changes to ensure that it is as widely advertised as possible. The Director of Operational Services said that this was part of the communications plan and publicity was ongoing on social media. He also advised that the implementation will be monitored and there will be standby crews to support in case of any issues.

RESOLVED

1. To note the update contained in the report.
2. To approve the implementation of round review as set out in para 3 of the report.

Agreed

## **10 ANY OTHER BUSINESS**

The Chairman advised that there were no further items of business to be discussed.

The meeting ended at: 20:30

Forward Plan for Environment Committee

Environment Committee			Pre Meet Date	Agenda Published	Committee Date
21-146	Playground & Open Space Review	Head of Property & Asset Management	17/01/22	19/01/22	26/1/22
21-125	Environmental Strategy and Carbon Footprint Action Plan	Strategic Director (KW)	17/1/22	19/1/22	26/1/22
21-126	Flytipping and Waste - lessons learned report	Head of Environmental Services	TBC	TBC	TBC
21-127	Hit Squad Review	Director of Operational Services	TBC	TBC	TBC
21-129	Vehicle Charging Point	Head of Customer Services	TBC	TBC	TBC
21-130	Norfolk Waste Partnership Update	Head of Environmental Services	TBC	TBC	TBC

**URN:** 21-019

**Subject:** Air Quality Status Report

**Report to:** Environment Committee 25<sup>th</sup> November 2021

**Report by:** James Wilson – Head of Environmental Services

#### **SUBJECT MATTER**

This report details Great Yarmouth's 2020 Air Quality Annual Status Report. This is an annual report to Government on the state of local air quality in the Borough.

#### **RECOMMENDATIONS**

##### **That Members:**

- Notes the Air Quality Status Report 2020 and its contents.

## **1. Introduction**

- 1.1. Great Yarmouth Borough Council must report annually on the status of the air quality in the Borough, as required by Part IV of the Environment Act 1995. The reporting format follows a standard national template.

## **2. The 2020 Report**

- 2.1. Overall, this Air Quality Annual Status Report has not revealed any exceedance of air quality standards and has not predicted any likely exceedance over the next 12 months.

## **3. Recommendations**

- 3.1. That the committee notes the Air Quality Status Report 2020 and its contents.

## **4. Background papers**

- 4.1. Appendix 1 2020 Air Quality Annual Status Report (ASR)

Area for consideration	Comment
Monitoring Officer Consultation:	None
Section 151 Officer Consultation:	None

Existing Council Policies:	none
Financial Implications (including VAT and tax):	None
Legal Implications (including human rights):	None
Risk Implications:	None
Equality Issues/EQIA assessment:	None
Crime & Disorder:	None
Every Child Matters:	None



# 2020 Air Quality Annual Status Report (ASR)

In fulfilment of Part IV of the  
Environment Act 1995  
Local Air Quality Management

October 2021

Local Authority Officer	David Addy
With gratefully received help and input from	Jane Jackson Clare Wright Steven Hall
Department	Environmental Services
Address	Town Hall Hall Plain Great Yarmouth Norfolk NR30 2QF
Telephone	01493 846478
E-mail	<a href="mailto:health@great-yarmouth.gov.uk">health@great-yarmouth.gov.uk</a>
Report Reference number	GYBC/ASR/2020



## Executive Summary: Air Quality in Our Area

Overall, this Air Quality Annual Status Report has not revealed any exceedance of air quality standards and has not predicted any likely exceedance over the next 12 months.

The Port is increasingly handling work related to North Sea offshore wind turbine construction and maintenance, and oil rig decommissioning. The Outer Harbour remains in use for general bulk cargo and there are no plans to set up a container terminal. The detailed assessment in 2010 recommended a watching brief and that position remains the same.

The Local Enterprise Zone for the South Denes peninsula, plus the Local Development Order covering this area, and small parts of Southtown and Gorleston, is expected to attract new industry over the coming years with its relaxation of planning standards. Close liaison between Environmental Services and Planning departments is taking place to give early identification of new business that may impact on local air quality. Work has commenced on construction of the new hotel and commercial development on the Yarmouth south beach seafront (known as the Edge).

Construction work at several large residential developments and the enterprise zone in Bradwell and South Gorleston are progressing, and the associated A47 (A12) – A143 link road (assessed as unlikely to have adverse impacts) is now in use.

The dualling of the A47 between Acle and Great Yarmouth has no firm timescale for construction yet, with Highways England suggesting that it would not happen for another decade, despite the A47 Alliance is applying for funding for it as a priority project with the 2020-25 period. The Great Yarmouth Third River Crossing (GYTRC) (between Southtown and the South Denes Peninsula) construction has now started and is scheduled for completion in 2023. The GYTRC and highway changes mean that the NO<sub>2</sub> diffusion tube locations need to be reviewed for 2022.

Highways England have improved a number of A47 junctions in Great Yarmouth. The Harfrey's Roundabout where the proposed GYTRC would join the A47, is scheduled for improvement. Together the GYTRC and A47 junction improvements have the potential to significantly improve connectivity between the LDO / Enterprise Zone including port of Great Yarmouth, and the strategic road network.

The Council's state-of-the-art automatic monitoring station (which is of an AURN and airport standard) has provided real-time monitoring data for since 2018, including (crucially for LAQM) PM<sub>10</sub>, PM<sub>2.5</sub>, and NO<sub>2</sub>.

A detailed assessment is not required for any pollutants and the Council will progress to the next Annual Status Report in 2021.

## **Air Quality in Great Yarmouth**

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas<sup>1,2</sup>.

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion<sup>3</sup>.

Great Yarmouth Borough Council's area is situated in the south east corner of Norfolk. It covers the area from Hopton-on-Sea in the south to Winterton-on-Sea in the north, a coastline of some 24 miles. The southern boundary follows the County boundary with Suffolk. To the west and north, the Borough is bounded by rivers of the Norfolk Broads including the Yare, Waveney, Bure and Thurne.

A mixed urban/rural area, the population of approximately 98,000 is concentrated in the urban centres of Great Yarmouth, Gorleston, Bradwell and Caister-on-Sea, with smaller communities in Hopton-on-Sea, Hemsby, Martham, Ormesby and Winterton on-Sea. In summer, the population doubles. The geology is gently undulating in the east on glacial tills with flat marshland adjacent to the Broadland rivers. The River Yare is the principal river of Broadland and this discharges to the North Sea at Great Yarmouth, forming a long narrow port area. There are a number of Sites of Special Scientific Interest and Breydon Water is considered an important international site with a RAMSAR designation.

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<sup>1</sup> Environmental equity, air quality, socioeconomic status and respiratory health, 2010

<sup>2</sup> Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

<sup>3</sup> Defra. Abatement cost guidance for valuing changes in air quality, May 2013



Most land use outside the built-up urban areas is given over to farming. This is predominantly arable farming although there are grazing marshes on the river flood plains. Large areas adjacent to the coast are used in conjunction with tourism which is one of the main industries. The Port is the principal UK base for the Southern North Sea offshore oil and gas industry, as well as becoming established as a centre for the construction and maintenance of offshore wind farms in the North Sea.

The key pollutants of concern locally continue to be Nitrogen Oxides and particulates primarily from traffic and industrial emissions.

GYBC plays an active part in the Norfolk LAQM sub-group of all district Councils, and Norfolk County Council Highways and Public Health. The Environment Agency and the University of East Anglia unfortunately no longer attend the group, though their participation in the past was valuable, and would be welcomed again.

## **Actions to Improve Air Quality**

The Borough does not have any Air Quality Management Areas, and so there is no specific action plan to improve air quality. However, the Council has taken a number of measures forward over recent years (see section 2) to improve air quality, and to reduce the exposure of the public to adverse air quality.

## **Conclusions and Priorities**

Following the Council's former air quality monitoring station site in Gorleston being decommissioned in late 2016, the Council's new, state-of-the-art replacement monitoring station was installed in December 2017 in South Denes, monitoring a wider range of pollutants (including PM<sub>10</sub> PM<sub>2.5</sub> and NO<sub>2</sub>), and providing a local bias adjustment factor for the NO<sub>2</sub> diffusion tubes – the location of these will be reviewed for 2022, due to the GYTRC and A47 changes.

This updated monitoring programme, will provide data for future vital decisions around transport, infrastructure, business, and housing development for the Borough.

Given the current levels of pollutants measured, a detailed assessment is not required for any pollutants and the Council will progress to the next Annual Status Report in 2021.

## Local Engagement and How to get Involved

If people would like to find out more about air quality, and how they can contribute to improving it in their area, these links can provide further information:

- Defra's – UK Government – UK-Air website: <https://uk-air.defra.gov.uk/>
- Great Yarmouth Borough Council's real-time air quality (and meteorology) monitoring data: <http://www.ukairquality.net/>
- Sustrans' 'CleanSpace' sustainable transport and air quality movement: <http://www.sustrans.org.uk/what-you-can-do/use-your-car-less/join-air-quality-movement> - the Council has bought some of the CleanSpace Tags mentioned on this site, for residents and staff in urban areas to trial. Please contact the report's author or your Neighbourhood Manager for more information. Media enquiries should be directed to the Council's Communications & Press Officer;
- 'Air Pollution' website – college/university level: <http://www.air-quality.org.uk/index.php>
- BBC 'Bitesize' – GCSE air quality: [http://www.bbc.co.uk/schools/gcsebitesize/science/21c/air\\_quality/](http://www.bbc.co.uk/schools/gcsebitesize/science/21c/air_quality/)
- 'Clean Air Kids' – air quality website for children aged 5-11: <http://www.clean-air-kids.org.uk/index.html>
- Evolution of WHO air quality guidelines: past, present and future (2017) – report on the World Health Organisation's evolving advice: <http://www.euro.who.int/en/health-topics/environment-and-health/air-quality/publications/2017/evolution-of-who-air-quality-guidelines-past,-present-and-future-2017>

Please note that Great Yarmouth Borough Council does not have any control over the content of the above websites, and is not responsible for their content, which it does not necessarily endorse.



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## 1 Local Air Quality Management

This report provides an overview of air quality in the Borough of Great Yarmouth during 2019. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by Great Yarmouth Borough Council to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England can be found in Table E.1 in Appendix E.

## 2 Actions to Improve Air Quality

### 2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority must prepare an Air Quality Action Plan (AQAP) within 12-18 months setting out measures it intends to put in place in pursuit of compliance with the objectives.

Great Yarmouth Borough Council currently does not have any AQMAs. For reference, a map of Great Yarmouth Borough Council's monitoring locations is available in Appendix D.

☒ Great Yarmouth Borough Council confirm the information on UK-Air regarding their AQMA(s) is up to date



## 2.2 Progress and Impact of Measures to address Air Quality in the Borough of Great Yarmouth

Defra's last appraisal of the 2018 ASR concluded *"On the basis of the evidence provided by the Local Authority the conclusions reached are acceptable for all sources and pollutants."*

*The next step for Great Yarmouth Borough Council is to submit their next Annual Status Report in 2019."*

There appears to have been a technical issue with the 2019 ASR submission, as neither the ASR or the appraisal were showing. The ASR has now been resubmitted.

Great Yarmouth Borough Council has taken forward a number of direct measures during the current reporting year of 2020 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.1.

Key completed measures are:

- Secure bikes stores installed at multiple Council Offices;
- Installation of rapid electric vehicle charging point in Council car park; and,
- Bin lorry route optimisation.

Great Yarmouth Borough Council expects the following measures to be completed over the course of the next reporting year:

- Removal of unnecessary streetlights; and,
- Installation of 16 fast electric vehicle charging points over 8 Council car parks.

Table 2.1 – Progress on Measures to Improve Air Quality

Measure No.	Measure	EU Category	EU Classification	Date Measure Introduced	Organisations involved	Funding Source	Key Performance Indicator	Reduction in Pollutant / Emission from Measure	Progress to Date	Estimated / Actual Completion Date	Comments / Barriers to implementation
1	Payment of cycling allowance to Council staff	Alternatives to private vehicle use	Other	Ongoing	GYBC	GYBC	Reduction in car mileage & take-up of scheme	N/A	Implemented	Ongoing	Small impact
2	Work bike scheme	Alternatives to private vehicle use	Other	Ongoing	GYBC	GYBC	Reduction in car mileage & take-up of scheme	N/A	Implemented	Ongoing	Bikes regularly used by staff
3	Replacement of streetlights with energy efficient units	Policy Guidance and Development Control	Low Emissions Strategy	Ongoing	GYBC	GYBC	Reduction in energy bill	N/A	Planned long term replacement scheme	Ongoing	Reduced energy bills for the Council
4	Establishment of county wide air quality group	Policy Guidance and Development Control	Regional Groups Co-ordinating programmes to develop Area wide Strategies to reduce emissions and improve air quality	Ongoing	Joint partnership	Joint partnership	Better air quality & public health in Norfolk	N/A	Implemented	Ongoing	Shared ideas & feeding into County Council policies on transportation, public health & air quality
5	Promotion of town walks	Promoting Travel Alternatives	Promotion of walking	Ongoing	GYBC	GYBC	Reduction in vehicle use in town	N/A	Implemented	Ongoing	Reduction in vehicle use
6	Carbon reduction and fuel poverty	Policy Guidance and Development Control	Other policy	Ongoing	GYBC	GYBC	Reduction in energy bills	N/A	Implemented	Ongoing	Reduction in energy bills for householders
7	Leisure centre replacement	Policy Guidance and Development Control	Low Emissions Strategy	2022	GYBC	GYBC	Reduction in emissions to air & energy bill	N/A	Preparation Phase	2022	Air source heat pumps, solar panels, CHP, heat recovery, highly efficient and insulated, so EPC A
8	Introduction and improvement of safe cycle route between train station and town centre	Promoting Travel Alternatives	Promotion of cycling	Completed	Norfolk County Council	Norfolk County Council	Reduction in vehicle use in town	N/A	Planning phase	Completed	Reduction in vehicle emissions
9	Introduction and improvement of safe walking route between train station and town centre	Promoting Travel Alternatives	Promotion of walking	Completed	Norfolk County Council	Norfolk County Council	Reduction in vehicle use in town	N/A	Planning phase	Completed	Reduction in vehicle emissions
10	Removal of unnecessary streetlights	Policy Guidance and Development Control	Other policy	2021	GYB Services	GYB Services	Reduction in energy bill	N/A	Implemented	2021	Reduced energy bills for the Council

11	Establishment of joint working with Director of Public Health, GYBC & county wide air quality group	Policy Guidance and Development Control	Regional Groups Co-ordinating programmes to develop Area wide Strategies to reduce emissions and improve air quality	Ongoing	Joint partnership	Joint partnership	Better air quality & public health in Norfolk	N/A	Implemented	Ongoing	Shared ideas & feeding into County Council policies on transportation, air quality & public health
12	Construction of third road river crossing in Great Yarmouth	Transport Planning and Infrastructure	Other	2023	Norfolk County Council	Norfolk County Council	Reduction in vehicle use in town & better air quality	N/A	Preparation Phase	2023	The County and the Borough Councils are working on the business case
13	Procurement of electric vehicles for multiple Council Services	Vehicle Fleet Efficiency		2022	GYBC	GYBC	Reduction in Council vehicle emissions	N/A	Planning phase	2022	Was originally just Environmental Services, but extended to other services
14	Procurement of electric pool car for Council Staff use	Alternatives to private vehicle use	Other	2022	GYBC	GYBC	Reduction in Council vehicle emissions	N/A	Planning phase	2022	This replaces the unleaded petrol fuelled pool car
15	Secure bikes stores installed at multiple Council Offices	Alternatives to private vehicle use	Other	Completed	GYBC	GYBC	Reduction in car mileage & usage of bike stores	N/A	Implemented	Completed	Enhanced secure bike storage at the Town Hall/Grey Friars House and The Conge
16	Provision of pool bikes for Council Staff use	Alternatives to private vehicle use	Other	2022	GYBC	GYBC	Reduction in car mileage & usage of pool bikes	N/A	Planning phase	2022	Will facilitate cycling rather than car use for visits within the urban area, where staff have not cycled to work
17	Installation of rapid electric vehicle charging point in Council car park	Promoting Low Emission Transport		Completed	GYBC & Highways England	GYBC & Highways England	Reduction in vehicle emissions & usage	N/A	Implemented	Completed	20-30 minutes rapid electric vehicle charging point installed as part of A14 trunk road network
18	Installation of 16 fast electric vehicle charging points over 8 Council car parks	Promoting Low Emission Transport		2021	GYBC	GYBC	Reduction in vehicle emissions & usage	N/A	Planning phase	2021	3-4 hours fast electric vehicle charging points are proposed
19	Procurement of mobile AQ monitoring units	Other	Other	2022	GYBC	GYBC	Real time measurement of air quality when required around the Borough	N/A	Planning phase	2022	To be calibrated against AQMS and deployed in district
20	Proposed 'Bike to Work Day' for 'Clean Air Day'	Alternatives to private vehicle use	Other	2022	GYBC & Norfolk County Council	GYBC & Norfolk County Council	Reduction in car mileage & participation	N/A	Planning phase	2022	Proposed to be in conjunction with NCC Pushing Ahead cycling project if DfT funding continues
21	Bin lorry route optimisation	Vehicle Fleet Efficiency		Completed	GYB Services	GYB Services	Reduction in fleet mileage and delay in procurement of additional bin lorry	N/A	Planning phase	Completed	GYB Services to utilise route optimisation software

22	Carbon reduction plan and carbon footprinting for Council	Other	Other	2022	GYBC	GYBC	Metrics on Council emissions to air, and reduction in these	N/A	Planning phase	2022	Scope to be defined, mapped and audited against
23	Installation and operation of new AQMS of airport/AURN specification	Other	Other	Complete	GYBC	GYBC	Real time measurement of air quality and production of bias adjustment factor for diffusion tubes	N/A	Implemented	Complete	New AQMS operating to over 99% data capture
24	New Local Plan for Planning Development Control	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2022	GYBC	GYBC	Implementation of new Local Plan	N/A	Planning phase	2022	Implementation after consultations and revisions



## 2.3 PM<sub>2.5</sub> – Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG16 (Chapter 7), local authorities are expected to work towards reducing emissions and/or concentrations of PM<sub>2.5</sub> (particulate matter with an aerodynamic diameter of 2.5µm or less). There is clear evidence that PM<sub>2.5</sub> has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

Great Yarmouth Borough Council is taking the following measures to address PM<sub>2.5</sub>:

- In December 2017, following a capital procurement exercise, Great Yarmouth Borough Council had an Air Monitors AQMS installed, with a FIDAS for monitoring PM<sub>2.5</sub> (plus PM<sub>10</sub>, and theoretically any other particle size class), and a Thermo NO<sub>x</sub> analyser, which basically brought the Council's real-time air quality monitoring into parity with AQMS used for monitoring airports, or being introduced into the national AURN network. This means that within the Borough of Great Yarmouth, we are more aware what concentrations our residents and visitors are exposed to. Another advantage of this high specification AQMS, is that it is highly suitable for enabling the calibration of portable real-time air quality monitors, meaning that Great Yarmouth Borough Council, our partner authorities within the Norfolk LAQM sub-group, or one of the neighbouring Suffolk LAs could co-locate portable monitors with the Council's AQMS, and so calibrate them for increased accuracy in the field;
- To this end, a capital procurement bid has been made for two portable Air Quality Monitoring Stations, which could potentially measure PM<sub>2.5</sub>, PM<sub>10</sub>, O<sub>3</sub>, NO<sub>2</sub>, temperature and humidity. If successful, these portable AQMS could be used to monitor PM<sub>2.5</sub> throughout the Borough, at sites proposed for allocation in the emerging local plan, or where planning applications have been made;
- The Council is working through the Norfolk Environmental Protection Group's (NEPG) Air Quality Sub-Group, to ensure regular two-way engagement with representatives of Public Health England, and the Director of Public Health at Norfolk County Council;
- The Council will also be meeting and working with the Director of Public Health's Office to help imbed air quality within their work, their Joint Strategic

Needs Assessment, to ensure that it is discussed at the Norfolk Health and Wellbeing Board, and to ideally provide data to improve the Public Health Outcomes Framework indicator 3.01 'Fraction of mortality attributable to particulate air pollution' estimate. The Council's new AQMS and proposed Micro AQMS will directly support this through the provision of accurate PM<sub>2.5</sub> data;

- The Council has direct dialogue with Officers of Norfolk County Council Highways, and also through the NEPG Air Quality Subgroup, on proposed significant changes to highways and traffic flows in the Borough, when possible improvements to PM<sub>2.5</sub> exposure will also be considered;
- Also, the Council's measures from section 2.2 and 'Table 2.2 – Progress on Measures to Improve Air Quality' above, also contribute to reducing PM<sub>2.5</sub> emissions and/or exposure;
- The Council's programme to encourage active travel, exercise, healthy choices, and avoidance of areas of poor air quality by residents and staff within the urban areas will continue.

## **3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance**

### **3.1 Summary of Monitoring Undertaken**

#### **3.1.1 Automatic Monitoring Sites**

This section sets out what monitoring has taken place and how it compares with objectives.

Great Yarmouth Borough Council undertook automatic (continuous) monitoring at nitrogen dioxide, particulate matter, and ozone at one site in South Denes, Great Yarmouth during 2019. Table A.1 in Appendix A shows the details of this site and the former site in Gorleston. NB. Local authorities do not have to report annually on the following pollutants: 1,3 butadiene, benzene, carbon monoxide and lead, unless local circumstances indicate there is a problem. National monitoring results are available at <https://uk-air.defra.gov.uk/interactive-map>

The Council's continuous monitoring data can be accessed at <http://www.ukairquality.net/>

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on how the monitors are calibrated and how the data has been adjusted are included in Appendix C.

#### **3.1.2 Non-Automatic Monitoring Sites**

Great Yarmouth Borough Council undertook non-automatic (passive) monitoring of NO<sub>2</sub> at one site during 2019. Table A.2 in Appendix A shows the details of this site, and the former site which provided data for 2015-2016 in this report.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. "annualisation" and/or distance correction), are included in Appendix C.



## 3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for bias<sup>4</sup>, “annualisation” (where the data capture falls below 75%), and distance correction<sup>5</sup>. Further details on adjustments are provided in Appendix C.

### 3.2.1 Nitrogen Dioxide (NO<sub>2</sub>)

Table A.3 in Appendix A compares the ratified and adjusted monitored NO<sub>2</sub> annual mean concentrations for the past 5 years with the air quality objective of 40µg/m<sup>3</sup>.

For diffusion tubes, the full 2019 dataset of monthly mean values is provided in Appendix B. All tube results have been bias adjusted, though only four could be distance corrected, as the background 2018 Defra background levels (there is not more recent modelling) were too high for the tool to produce outputs, including for the Urban Background AQMS in South Denes.

Table A.4 in Appendix A compares the ratified continuous monitored NO<sub>2</sub> hourly mean concentrations for the past 5 years with the air quality objective of 200µg/m<sup>3</sup>, not to be exceeded more than 18 times per year.

There were no exceedances of either the annual, or hourly air quality objectives here, with an improving trend (over 5 years) for the annual mean objective, and the hourly objective unchanged at 0 exceedances.

### 3.2.2 Particulate Matter (PM<sub>10</sub>)

Table A.5 in Appendix A compares the ratified and adjusted monitored PM<sub>10</sub> annual mean concentrations for the past 5 years with the air quality objective of 40µg/m<sup>3</sup>.

Table A.6 in Appendix A compares the ratified continuous monitored PM<sub>10</sub> daily mean concentrations for the past 5 years with the air quality objective of 50µg/m<sup>3</sup>, not to be exceeded more than 35 times per year.

There were 12 exceedances of the 24 hour mean air quality objective here, and none for the annual objective, with the measured level being 21 µg/m<sup>3</sup>. Both of these are an increase compared to the decreasing trend of levels measured in Gorleston during 2015-2016. The Defra 2018 PM<sub>10</sub> background map (there is not more recent modelling) level for the area was 14.8µg/m<sup>3</sup>, and so the measured level was higher

<sup>4</sup> <https://laqm.defra.gov.uk/bias-adjustment-factors/bias-adjustment.html>

<sup>5</sup> Fall-off with distance correction criteria is provided in paragraph 3.2.1 of the LAQM-GT (15)



than predicted. We will review the levels in future to discern whether this site can be considered as Urban Background.

### **3.2.3 Particulate Matter (PM<sub>2.5</sub>)**

Table A.7 in Appendix A presents the ratified and adjusted monitored PM<sub>2.5</sub> annual mean concentrations for the past 5 years.

The measured PM<sub>2.5</sub> was 12µg/m<sup>3</sup>, the same as in 2018, which was the first year that the Council had the capacity to measure PM<sub>2.5</sub> and so it is not possible to discern any trend yet with respect to the measured 12µg/m<sup>3</sup>. The Defra PM<sub>2.5</sub> 2018 background map (there is not more recent modelling) level for the area was 10.0µg/m<sup>3</sup>, and so the measured level was broadly as predicted.

## Appendix A: Monitoring Results

**Table A.1 - Details of Automatic Monitoring Sites**

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) <sup>(1)</sup>	Distance to kerb of nearest road (m) <sup>(2)</sup>	Inlet Height (m)
CM1	Maltings House, Gorleston	Urban background	652498	305600	PM10	NO	BAM	5	25	3
					O3	NO	UV Photometer			
					NO2	NO	Chemiluminescent			
CM2	Fenner Road	Urban Background	652983	305658	PM10	NO	Optical	145	6	2.5
					PM2.5	NO	Optical			
					NO2	NO	Chemiluminescent			

**Notes:**

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicable

Table A.2 – Details of Non-Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Distance to Relevant Exposure (m) <sup>(1)</sup>	Distance to kerb of nearest road (m) <sup>(2)</sup>	Tube collocated with a Continuous Analyser?	Height (m)
DT1	12 Bridge Road	Roadside	652054	308187	NO2	NO	0	4	NO	3
DT2	44 North Quay	Roadside	652079	307828	NO2	NO	0	2	NO	2.5
DT3	60 North Quay (upper)	Roadside	652105	307664	NO2	NO	0	1	NO	3
DT5	110 South Quay	Roadside	652518	306863	NO2	NO	0	6	NO	3
DT6	9 Southgates Road	Roadside	652569	306536	NO2	NO	0	3	NO	3
DT7	41 Southgates Road	Roadside	652611	306224	NO2	NO	0	2	NO	3
DT4	Southtown Road Junction	Roadside	652045	307417	NO2	NO	0	2	NO	3
DT8	Maltings House, Gorleston	Urban Background	652496	305605	NO2	NO	5	26	YES	2.5
DT8	Maltings House, Gorleston	Urban Background	652496	305605	NO2	NO	5	26	YES	2.5
DT8	Maltings House, Gorleston	Urban Background	652496	305605	NO2	NO	5	26	YES	2.5
DT9	81 North Quay	Roadside	652069	307871	NO2	NO	0	3	NO	3
DT10	1 South Quay	Roadside	652321	307321	NO2	NO	0	3	NO	1.5
DT11	25 South Quay	Roadside	652421	307184	NO2	NO	0	4	NO	2
DT12	Pasteur Road	Roadside	651993	307370	NO2	NO	14.5	9	NO	1.5
DT8	Fenner Road	Urban Background	652983	305658	NO2	NO	145	6	YES	2.5

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DT8	Fenner Road	Urban Background	652983	305658	NO2	NO	145	6	YES	2.5
DT8	Fenner Road	Urban Background	652983	305658	NO2	NO	145	6	YES	2.5

### Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicable.

Table A.3 – Annual Mean NO<sub>2</sub> Monitoring Results

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2019 (%) <sup>(2)</sup>	NO <sub>2</sub> Annual Mean Concentration (µg/m <sup>3</sup> ) <sup>(3) (4)</sup>				
							2015	2016	2017	2018	2019
CM1	652498	305600	Urban Background	Automatic	N/A	N/A	16.8	14.5	N/A	N/A	N/A
CM2	652983	305658	Urban Background	Automatic	99.91	99.91	N/A	N/A	N/A	15	15
DT1	652054	308187	Roadside	Diffusion Tube	91.67	91.67	21.9	21.1	25.6	22.5	17.09
DT2	652079	307828	Roadside	Diffusion Tube	83.33	83.33	22.5	21.2	20.9	19.4	14.78
DT3	652105	307664	Roadside	Diffusion Tube	100	100	25.4	24.4	21.8	22.2	16.90
DT5	652518	306863	Roadside	Diffusion Tube	100	100	23.8	22.9	21.7	18.9	14.35
DT6	652569	306536	Roadside	Diffusion Tube	100	100	24.4	22.2	22.3	19.8	15.02
DT7	652611	306224	Roadside	Diffusion Tube	100	100	20.9	20.3	19	18.1	13.78
DT4	652045	307417	Roadside	Diffusion Tube	100	100	37.4	33.2	36.7	30.3	23.04
DT8	652496	305605	Urban Background	Diffusion Tube	N/A	N/A	16	17.7	16.7	N/A	N/A
DT8	652496	305605	Urban Background	Diffusion Tube	N/A	N/A	16.3	17.7	16.2	N/A	N/A
DT8	652496	305605	Urban Background	Diffusion Tube	N/A	N/A	15.7	17.1	16.3	N/A	N/A
DT9	652069	307871	Roadside	Diffusion Tube	100	100	19.9	18.5	18.8	17.0	12.93
DT10	652321	307321	Roadside	Diffusion Tube	100	100	32.8	33.7	33.2	29.8	22.65



DT11	652421	307184	Roadside	Diffusion Tube	100	100	31.6	27.4	27.9	21.6	16.42
DT12	651993	307370	Roadside	Diffusion Tube	91.67	91.67	N/A	24.9	23.3	21.0	15.93
DT8	652983	305658	Urban Background	Diffusion Tube	100	100	N/A	N/A	N/A	14.0	10.64
DT8	652983	305658	Urban Background	Diffusion Tube	100	100	N/A	N/A	N/A	14.0	10.66
DT8	652983	305658	Urban Background	Diffusion Tube	100	100	N/A	N/A	N/A	13.6	10.32

☒ Diffusion tube data has been bias corrected

☒ Annualisation has been conducted where data capture is <75%

☒ Reported concentrations are those at the location of the monitoring site (bias adjusted and annualised, as required), i.e. prior to any fall-off with distance adjustment

#### Notes:

Exceedances of the NO<sub>2</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

NO<sub>2</sub> annual means exceeding 60µg/m<sup>3</sup>, indicating a potential exceedance of the NO<sub>2</sub> 1-hour mean objective are shown in **bold and underlined**.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

(3) Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per Boxes 7.9 and 7.10 in LAQM.TG16 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(4) Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

Table A.4 – 1-Hour Mean NO<sub>2</sub> Monitoring Results

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2019 (%) <sup>(2)</sup>	NO <sub>2</sub> 1-Hour Means > 200µg/m <sup>3</sup> <sup>(3)</sup>				
							2015	2016	2017	2018	2019
CM1	652498	305600	Urban Background	Automatic	N/A	N/A	0	0 (80.5)	N/A	N/A	N/A
CM2	652983	305658	Urban Background	Automatic	99.91	99.91	N/A	N/A	N/A	0	0

**Notes:**

Exceedances of the NO<sub>2</sub> 1-hour mean objective (200µg/m<sup>3</sup> not to be exceeded more than 18 times/year) are shown in **bold**.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

(3) If the period of valid data is less than 85%, the 99.8<sup>th</sup> percentile of 1-hour means is provided in brackets.

Table A.5 – Annual Mean PM<sub>10</sub> Monitoring Results

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2019 (%) <sup>(2)</sup>	PM <sub>10</sub> Annual Mean Concentration (µg/m <sup>3</sup> ) <sup>(3)</sup>				
						2015	2016	2017	2018	2019
CM1	652498	305600	Urban Background	N/A	N/A	16.8	15.5	N/A	N/A	N/A
CM2	652983	305658	Urban Background	91.50%	91.50%	N/A	N/A	N/A	20	21

☒ Annualisation has been conducted where data capture is <75%

**Notes:**

Exceedances of the PM<sub>10</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

(3) All means have been “annualised” as per Boxes 7.9 and 7.10 in LAQM.TG16, valid data capture for the full calendar year is less than 75%. See Appendix C for details.



Table A.6 – 24-Hour Mean PM<sub>10</sub> Monitoring Results

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2019 (%) <sup>(2)</sup>	PM <sub>10</sub> 24-Hour Means > 50µg/m <sup>3</sup> <sup>(3)</sup>				
						2015	2016	2017	2018	2019
CM1	652498	305600	Urban Background	N/A	N/A	0	0 (14.9)	N/A	N/A	N/A
CM2	652983	305658	Urban Background	91.50%	91.50%	N/A	N/A	N/A	10	12

**Notes:**

Exceedances of the PM<sub>10</sub> 24-hour mean objective (50µg/m<sup>3</sup> not to be exceeded more than 35 times/year) are shown in **bold**.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

(3) If the period of valid data is less than 85%, the 90.4<sup>th</sup> percentile of 24-hour means is provided in brackets.

Table A.7 – PM<sub>2.5</sub> Monitoring Results

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2019 (%) <sup>(2)</sup>	PM <sub>2.5</sub> Annual Mean Concentration (µg/m <sup>3</sup> ) <sup>(3)</sup>				
						2015	2016	2017	2018	2019
CM2	652983	305658	Urban Background	91.50%	91.50%	N/A	N/A	N/A	12	12

☒ Annualisation has been conducted where data capture is <75%

**Notes:**

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

(3) All means have been “annualised” as per Boxes 7.9 and 7.10 in LAQM.TG16, valid data capture for the full calendar year is less than 75%. See Appendix C for details.

## Appendix B: Full Monthly Diffusion Tube Results for 2019

Table B.1 - NO<sub>2</sub> Monthly Diffusion Tube Results - 2019

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	NO <sub>2</sub> Mean Concentrations (µg/m <sup>3</sup> )														
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean		
															Raw Data	Bias Adjusted (0.76) and Annualised <sup>(1)</sup>	Distance Corrected to Nearest Exposure <sup>(2)</sup>
DT1	652054	308187	32.25	38.19	24.75	18.43	18.31	20.74	22.36	N/A	22.56	25.60	29.50	30.30	25.73	19.55	19.6
DT2	652079	307828	30.26	36.82	24.36	26.24	22.38	N/A	N/A	24.28	22.83	21.00	29.30	18.70	25.62	19.47	
DT3	652105	307664	26.6	37.87	24.35	26.11	27.13	24.77	25.67	26.48	23.94	24.30	28.30	21.90	26.45	20.10	
DT5	652518	306863	25.35	29.18	22.95	27.94	26.32	26.39	21.63	23.40	26.80	20.10	25.40	22.50	24.83	18.87	
DT6	652569	306536	26.86	34.06	25.21	20.09	22.93	23.78	24.03	25.39	23.83	26.20	28.70	19.60	25.06	19.04	
DT7	652611	306224	27.09	31.29	20.58	14.75	22.7	22.93	21.36	21.36	20.16	21.70	27.60	19.10	22.55	17.14	
DT4	652045	307417	47.89	48.03	44.75	31.11	45.46	39.2	37.41	42.21	39.04	31.10	40.00	39.80	40.50	30.78	30.8
DT9	652069	307871	26.88	32.3	20.91	19.78	16.93	17.65	17.32	17.93	17.10	13.40	26.00	17.50	20.31	15.43	
DT10	652321	307321	38.48	37.48	35.35	39.71	41.77	41.65	40.28	33.62	35.57	35.30	37.40	26.80	36.95	28.08	28.1
DT11	652421	307184	35.44	36.8	27.14	29.35	29.49	23.96	29.36	24.18	30.69	25.30	31.50	26.30	29.13	22.14	
DT12	651993	307370	25.04	34.39	25.57	N/A	20.74	24.34	14.82	25.13	23.51	22.50	31.60	18.30	24.18	18.37	18.1
DT8	652983	305658	26.90	27.59	19.82	12.30	13.51	14.19	15.80	15.85	16.57	18.23	25.03	19.32	18.76	14.26	
DT8	652983	305658	30.49	30.00	20.35	15.13	14.89	15.06	15.73	16.92	13.81	17.58	25.56	20.26	19.65	14.93	
DT8	652983	305658	30.59	32.56	22.86	16.45	13.62	14.59	16.19	16.41	17.29	17.26	24.35	20.77	20.25	15.39	

- ☒ Local bias adjustment factor used
- ☒ National bias adjustment factor used
- ☒ Annualisation has been conducted where data capture is <75%
- ☒ Where applicable, data has been distance corrected for relevant exposure in the final column

**Notes:**

Exceedances of the NO<sub>2</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

NO<sub>2</sub> annual means exceeding 60µg/m<sup>3</sup>, indicating a potential exceedance of the NO<sub>2</sub> 1-hour mean objective are shown in **bold and underlined**.

(1) See Appendix C for details on bias adjustment and annualisation.

(2) Distance corrected to nearest relevant public exposure.



## Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

### QA/QC of Diffusion Tube Monitoring

The diffusion tubes are supplied by Gradko Environmental, part of Gradko International Ltd. They consist of 20% TEA (Triethanolamine) in deionised water. Once received by post the tubes are stored in a refrigerator until required. Once the tubes have been placed in their holders, the end caps are removed, and the tubes exposed for a month. At the end of the period the tubes are recapped and retrieved and stored in the refrigerator until returned by post to the laboratory for analysis. A travel blank is used. This travels everywhere with the exposed tubes but is not itself exposed. It is stored in the refrigerator and sent for analysis with the exposed tubes. Its purpose is to check on contamination of the tubes.

Gradko International is accredited by UKAS for the analysis of NO<sub>2</sub>. Gradko also take part in the AIR NO<sub>2</sub> Proficiency Testing Scheme on a quarterly basis. Their AIR results over the previous four rounds of testing covering January to November 2019, gave 100% laboratory performance in terms of the accuracy and precision of results during three rounds, and 75% during one round (Summary of Laboratory Performance in AIR NO<sub>2</sub> Proficiency Testing Scheme (January 2019 – October 2020)).

### Diffusion Tube Bias Adjustment Factors

The National bias adjustment factor for the period was 0.91 (Spreadsheet Version Number: 9/21)

### Factor from Local Co-location Studies

The Borough Council has co-located three diffusion tubes with its continuous air quality monitors. The site is set up as an urban background site, to give continuity to the Council's previous urban background site. From the co-location study the local bias adjustment factor derived is 0.76 for 12 months of data, as detailed in Figure C.1 below.



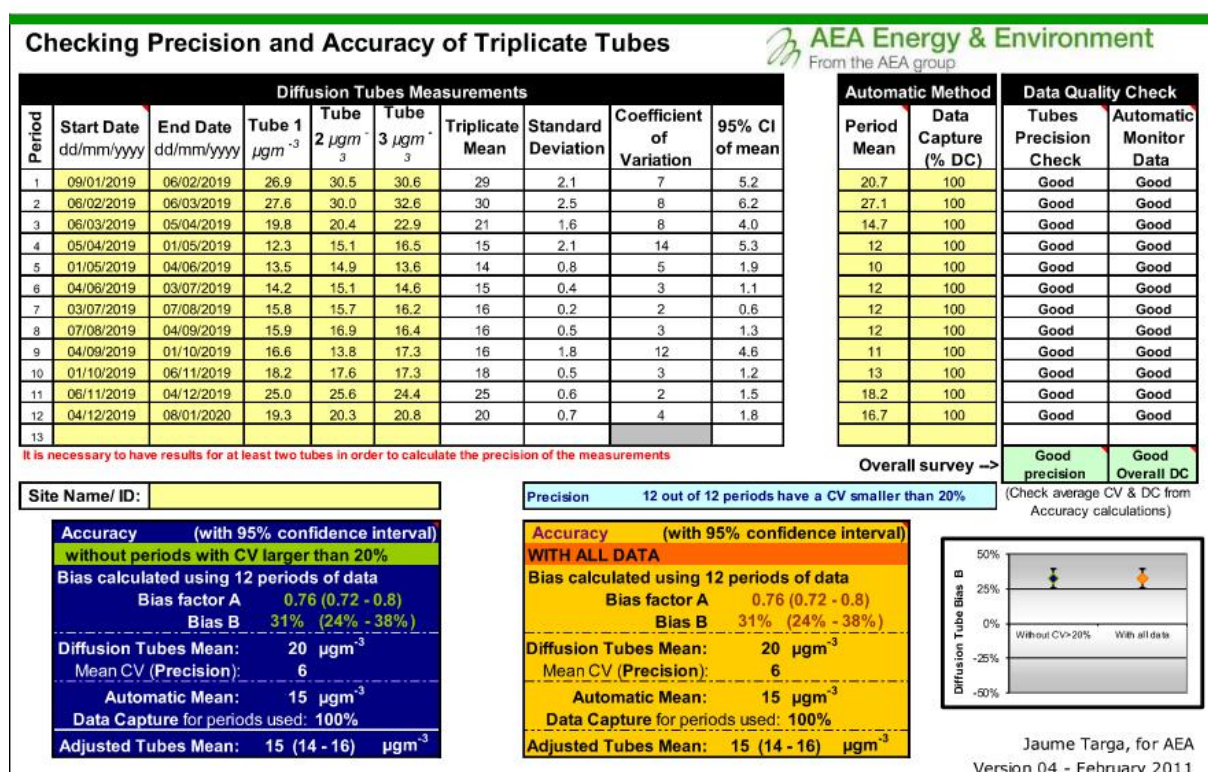


Figure C.1 Derivation of Local Bias Adjustment Figure

### Discussion of Choice of Factor to Use

The Borough Council has used the local bias adjustment figure of 0.76 as the bias adjustment factor. The national factor for 2019 is reasonably similar, and also less than 1. There is a preference to use a local factor due to the following:

- The co-location of triplicate tubes alongside the continuous monitoring site;
- There is greater than 9 months of data; and,
- It is considered the local bias adjustment factors will be most representative of the local conditions – particularly as the national bias adjustment factor is composed of many different site types, and length of studies.

### Distance Correction of Bias adjusted Diffusion Tube Data

The Council has attempted to distance correct the annual bias adjusted diffusion tube data, using Bureau Veritas' 'NO<sub>2</sub> Fall off with Distance from Road Calculator v4.2' spreadsheet. However, this was only possible with two tubes, as the background levels were too high on the Defra 2019 NO<sub>2</sub> maps.

### QA/QC of automatic monitoring

The automatic monitors are maintained in accordance with the manufacturer's recommendations. The Council has a maintenance contract with Acoem UK (formerly Air Monitors Ltd.) who also supplied the new AQMS to the Council. The site is routinely

visited by Acoem UK every six months for routine maintenance and the contract allows for a 48hour response to emergency call out situations.

Automatic calibrations of the NO<sub>2</sub> analyser are carried out daily. BOC specialist calibration gases are used to obtain span values and instrumental drift is accounted for during the processing of the data. Data processing and handling is provided by Ricardo Energy & Environment undertakes both the data management and 6-monthly AQMS QA/QC services for the Council, which is recommended as best practice by Defra in LAQM TG (16). The AQMS completes regular automated calibrations to the Fidas 200 (with WS600 MET Station) particulate monitor, and Thermo Model 42i Chemiluminescent NO-NO<sub>2</sub>-NO<sub>x</sub> Analyser. Inlet filter changes are also carried out by the Council's contractors. Council Officers undertake periodic checks of the site, and also visit when potential issues are reported by Ricardo Energy & Environment. It should be noted that the Council's AQMS is to a similar specification used to monitor UK airports, and within the national AURN AQ monitoring network.

All site visits are recorded in the site log and describe adjustments, repairs, problems encountered etc. following scheduled service visits reports are issued by the engineers.



## Appendix D: Map(s) of Monitoring Locations and AQMAs



Figure D.1 Location of the Automatic Air Quality Monitoring Station



Figure D.2 Map(s) of Non-Automatic Monitoring Sites

## Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England

Pollutant	Air Quality Objective <sup>6</sup>	
	Concentration	Measured as
Nitrogen Dioxide (NO <sub>2</sub> )	200 µg/m <sup>3</sup> not to be exceeded more than 18 times a year	1-hour mean
	40 µg/m <sup>3</sup>	Annual mean
Particulate Matter (PM <sub>10</sub> )	50 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	24-hour mean
	40 µg/m <sup>3</sup>	Annual mean
Sulphur Dioxide (SO <sub>2</sub> )	350 µg/m <sup>3</sup> , not to be exceeded more than 24 times a year	1-hour mean
	125 µg/m <sup>3</sup> , not to be exceeded more than 3 times a year	24-hour mean
	266 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	15-minute mean

<sup>6</sup> The units are in microgrammes of pollutant per cubic metre of air (µg/m<sup>3</sup>).



## Glossary of Terms

Abbreviation	Description
AIR	Independent analytical proficiency-testing scheme by LGC Ltd. and the Health and Safety Laboratory (HSL)
ASR	Annual Status Report (on air quality)
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
AQMS	Air Quality Monitoring Station (real-time monitoring)
ASR	Air quality Annual Status Report
AURN	Automatic Urban and Rural Network (Defra's national automatic monitoring network)
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by Highways England
EU	European Union
FDMS	Filter Dynamics Measurement System
FIDAS	Real-time optic particulate monitor for AQMS
GYBC	Great Yarmouth Borough Council
GYB Services	Great Yarmouth Borough Services
GYTRC	Great Yarmouth Third River Crossing
LAQM	Local Air Quality Management
NCC	Norfolk County Council



NEPG	Norfolk Environmental Protection Group
NO <sub>2</sub>	Nitrogen Dioxide
NO <sub>x</sub>	Nitrogen Oxides
PM <sub>10</sub>	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM <sub>2.5</sub>	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
RAMSAR	The Convention on Wetlands, called the Ramsar Convention, is the intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources
SO <sub>2</sub>	Sulphur Dioxide
TEA	Triethanolamine: the reagent used in diffusion tubes as an absorbent for ambient NO <sub>2</sub>

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**URN:** 21-063

**Subject:** Beach Cleansing and Marram Grass

**Report to:** Environment Committee 25<sup>th</sup> 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**

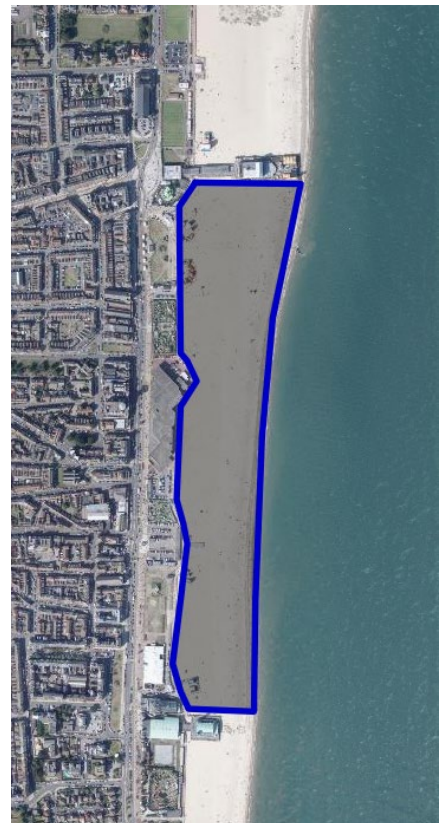
- 3.1 The Council has not yet defined any areas of beach to manage as a tourist beach. In defining such areas there is an opportunity to maintain these areas in a way to prevent colonisation of plant species that would impact on the beaches being used as an open sandy beach.
- 3.2 To ensure we are both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

**URN** 21-060

**Subject:** EU Interreg 2Seas Project FACET - supporting a Circular Economy within the tourism & leisure Sector

**Report to:** Environment Committee – 25 November 2021

**Report by:** Paula Boyce, Strategic Director  
Benjamin Gulliver, FACET Project Officer



## SUBJECT MATTER

FACET is an EU funded Interreg 2Seas project which seeks to support tourism, leisure & hospitality businesses in the borough of Great Yarmouth move to more resource efficient business models by adopting 'Circular Economy' practices.

Circular Economy (CE) solutions are those that aim to avoid, reduce, reuse and recycle the amount of waste in the system while increasing the quantity of recyclable materials and finding ways to utilise them within the local economy. With partner support and shared learning, this will be achieved by delivering a series of practical pilots over two years in the borough and measuring the impact with local hospitality sector businesses.

FACET also includes linking CE solutions with consumer/visitor behaviour change interventions thereby improving the availability of on-street litter and recycling.

As an Interreg project, FACET is a wider partnership of public, private and academic partners from across the Netherlands, France, Belgium and in the UK. The UK's named partner is Norfolk County Council and the chosen place for the investment is the borough of Great Yarmouth. The Borough Council is responsible for local delivery working with Norfolk CC's environment & waste services.

The project runs until 31<sup>st</sup> March 2023 and totals 3.9 million euros (£3.3 million) allocated across the programme.

### Recommendation:

**That the Environment Committee notes the contents of this report and endorses the continued development of this project.**

## 1. INTRODUCTION

- 1.1. 'FACET' stands for: *Facilitate the Adoption of Circular Entrepreneurship in the Tourism and Leisure Sector*. Project FACET is part of the wider Interreg 2Seas Programme.
- 1.2. Interreg 2Seas 2014-2020 is a European Territorial Cooperation Programme covering England, France, The Netherlands and Belgium. The programme is part financed by the European Regional Development Fund. The overall objective of Interreg 2 Seas is to develop an

innovative, knowledge and research based, sustainable 2 Seas area, where natural resources are protected, and the green economy is promoted. As a result, the 2 Seas Interreg Programme provides 60% of funding to projects including FACET, all of which contribute to one of the specific objectives shown below, including, building a Circular Economy.



- 1.3. FACET involves supporting and testing how, in sustainable terms, a shift to a more Circular Economy could be achieved to benefit the tourism & leisure sector, residents and visitors. The partner business organisations in Project FACET, are therefore either tourist resorts or companies/public sector organisations promoting the visitor economy:  
<https://www.interreg2seas.eu/en/FACET>.
- 1.4. Tourism and the visitor economy are a fundamental part of the economy for Great Yarmouth but, besides income, tourism also brings mass consumption of resources which could strain the already limited resources of the region. Tourists also tend to produce more waste than locals (European Environment Agency in Tourism and the Environment, 2018), further increasing the challenge, in particular, due to the seasonality of waste and waste processing.
- 1.5. With this in mind, the objective of FACET is to move away from 'make, use, dispose' known as the 'linear economy' and support local tourism, leisure and hospitality businesses in the Borough of Great Yarmouth to adopt a 'Circular Economy'. CE uses resources for as long as possible, regenerates materials and, in turn, prevents costly and unsustainable levels of waste.
- 1.6. The overall lead partner is based in The Netherlands. In the UK, the contingent is Norfolk County Council and Great Yarmouth Borough Council. The University of Greenwich is also included as an academic partner.

## 2. BUSINESS ENGAGEMENT AND PILOTS

- 2.1. Since its start-up in April 2020, the project has been gaining momentum and as of August 2021, it has over 30 local businesses across the borough signed-up to either learn more or take the bold step and be part of testing our pilots supported by both councils and our partners GYB Services Limited, Visit Great Yarmouth and the Town Centre Partnership.



- 2.2. In order to inform a set of pilot studies, a series of detailed waste audits and diagnostic meetings have been taking place with each of the interested businesses. The diagnostics are providing the FACET team with baseline data to measure the performance of pilot studies. An Action Plan for each participating business is also being developed as a result to establish 'CE business champions' that can share best practice with others in the sector in terms of practical interventions which have been proven to reduce the waste each business creates.
- 2.3. A generic Circular Economy toolkit is also in development and will be provided to all businesses signed-up to FACET in order to encourage the adoption of circular practices.
- 2.4. Research and learning to date, through speaking directly to interested local businesses suggests focusing on setting-up 4 Pilots to put in place solutions for: (1) Single Use Packaging (2) Food/Organic Waste (3) Reusable Cup Schemes and (4) Behaviour Change through an Art Sculpture Trail. These are summarised below.
- 2.5. **Single Use Packaging** – FACET is creating an opportunity for a social enterprise or Community Interest Company to take-up the opportunity to work with local communities and businesses to recycle post-consumer take away plastic packaging into other new plastic products which can be used within the borough. It is unclear at this stage if such a social enterprise exists or will be developed in response to this opportunity. However, the brief led by Norfolk County Council will also include partnering with East Norfolk Sixth Form college's design & technology department to undertake prototype testing and research as part of the pilot to develop a product (or products) which use this locally collected post-consumer plastic as a secondary raw material. The aim being to divert plastic material from disposal and turn it into valuable products that can be used locally.
- 2.6. **Food waste** – FACET will bolster the existing network of community fridges with the introduction of three new fridges in key locations where local food business can donate 'in date' items for redistribution to the local community. This will increase the ability to redistribute surplus chilled food. Subject to space being available and the types of waste generated, on site composting opportunities are also currently being explored. Self-catering accommodation providers are likely to be the most appropriate hosts due to space and suitability of waste produced for composting. A toolkit for participating businesses is also being developed which will include hints and tips to avoid food waste such as portion size and stock control.
- 2.7. **Reusable Cup Scheme** – Although many businesses are switching from polystyrene to paper cups, these are often not recyclable due to the wax lining. Therefore, many of the on-street general litter bins are filling up quickly with bulky cardboard chip trays and paper cups. FACET will tackle this issue by piloting a reusable cup scheme. The proposal is that customers will pay a £1 deposit which they will get back when the cup is dropped off at any of the participating cafés. Hemsby has been identified as a suitable location for an initial trial due to the density of food & drink outlets and willingness of local cafes to co-operatively take-part, thereby making it easier for consumers to find a local drop-off point. Similar schemes exist elsewhere (in Holt and Shrewsbury) and work within environmental health food hygiene guidelines.
- 2.8. **Behaviour Change Art Sculpture Trail** – whilst carbon reduction, net zero, and sustainability is becoming better understood across society, associating these new CE operating models in the

hearts and minds of consumers (residents and visitors) is critical to their success. The FACET pilots need people to understand and be willing to co-operate with reuse schemes and deposit their items in line with recycling rules etc when recycling on-the-go. Six iconic semi-permanent outdoor recycling drop-off points are therefore proposed. Each sculpture will encourage consumers to deposit their empty plastic bottles into eye-catching artistic drop-off bins (3 in Great Yarmouth, 1 in Hemsby and 2 in Gorleston-on-Sea) as part of the FACET project.

- 2.9. This will provide exciting opportunities for residents and visitors to engage in waste reduction activities as well as highlighting no littering and sustainability messages throughout the year. The County Council's brief, open to local and other artists, includes ensuring the art sculpture drop-off bins reflect the character of the resorts of Great Yarmouth, Hemsby and Gorleston-on-Sea – their unique history, culture, and their sustainable future. Each sculpture will be accompanied by an interpretation board to encourage CE thinking. The brief includes involvement of a series of awareness raising informative sustainability events involving local communities and schools. The purpose being to motivate individuals to think about Circular Economy principals, including prevention, reuse and recycling.
- 2.10. The council's in-house design team is supporting the FACET project with marketing and awareness-raising campaign planned once the CE interventions are in place with local businesses and on-street. This includes a new local CE brand which highlights the principles of the Circular Economy as shown below. This brand will appear and be promoted on all pilots, street bins and at the point of sale of participating businesses.



### 3. FACET TARGETS

3.1. The overall targets for the FACET project in Great Yarmouth are as follows:

- 20 SMEs will undertake a shift towards circularity through investments by June 2022.
- 15% reduction in amount of single use packaging by the actively participating businesses.
- 15% waste reduction and/or valorisation of otherwise generated business waste by actively participating businesses.
- 50% reduction in number of on street waste/litter collections in the geographic area(s) where street waste initiatives have been implemented.
- 20% visitor engagement with CE waste solutions.

- Involve 10 SMEs in the pilot studies.
- A reduction of at least 10% purchase costs where CE business waste solutions have been implemented as part of the pilot(s).
- Have at least 10 additional SMEs committed to implement circular solutions upon success of the pilot studies by December 2022.

3.2 Whilst it is early days in establishing the local pilots, each is being designed to meet or exceed these ambitious targets in order to make a lasting positive environmental impact on the visitor economy.

#### **4. ON STREET LITTER IMPROVEMENTS**

- 4.1. In addition to the pilot studies above, FACET aims to support the improvement of on-street litter, recycling and general waste facilities. This includes the introduction of 'smart' sensor bins in Hemsby which will alert waste teams when each bin is reaching capacity, thereby preventing overflowing and increasing the collection efficiency to reduce vehicle related emissions.
- 4.2. Bin capacity is also due to increase along Great Yarmouth seafront, in conjunction with the introduction of on-the-go recycling bins, to start capturing plastic and glass bottles and aluminium cans.
- 4.3. FACET will propose, working with businesses, to install a number of novel 'ballot bins' <https://ballotbin.co.uk/#find-out-more> across the borough in an effort to reduce cigarette butt littering, to help keep our streets clean and tidy for residents and visitors alike.

#### **5. FINANCIAL IMPLICATIONS**

- 5.1. The complete Interreg 2Seas FACET Project totals 3.9 million euros (£3.3million) across all partners in the programme over two years. Each FACET partner contributes 40% of the funding as part of the EU Interreg 2-Seas Programme with the fund providing the further 60% match. The Borough Council's contribution as part of this is £80,000 which has been funded from the existing resources and the Norfolk Strategic Fund.
- 5.2. The borough, as a prime tourism area, will receive the full benefit of the UK's portion of this investment which is € 790,701 in total (£678,714).

#### **6. RISKS**

- 6.1. The impact of COVID-19 significantly slowed down the process of business engagement up until March 2021. This has increased the time pressure in relation spend so as not be financially penalised by Interreg. The budget has been adjusted to deliver the 4 pilot studies and improvements to on-street waste management facilities to meet the required spend.
- 6.2. Circular Economy is a new concept to many of our local businesses. Although engagement and sign-up has been a challenge due to the pandemic, FACET now has a strong group of

businesses willing and ready to participate in the pilot studies in order for targets to be achieved.

## 7. CONCLUSION

- 7.1 Despite the impact of COVID-19 affecting the ability to engage with businesses around implementing Circular Economy solutions, project FACET is now in a strong position to begin shifting businesses operating in the tourism and leisure sector within the borough towards circular business models. This is due to a positive response during the last round of engagement.
- 7.2 Insights from businesses engaged on the project have helped inform the decision to deliver 4 pilots (Single Use Packaging, Food/Organic Waste, Reusable Cup Schemes and Behaviour Change Art Sculpture Trail) which will aid the adoption of Circular Economy principles, along with targeted Action Plans and the Circular Economy Toolkit. This, coupled with the improvements to on-street waste management facilities through adopting smart technology, increasing bin capacity and introducing novel ballot bins, will reduce the amount of waste produced and associated emissions while increasing the capture of recyclable materials to be used to support the local economy.
- 7.3 Being cleaner and more environmentally aware can only help to improve the borough's standing as one of the UK's main tourist destinations.

Area for consideration	Comment
Monitoring Officer Consultation	Yes – via ELT
Section 151 Officer Consultation	Yes – via ELT
Existing Council Policies (See background papers)	Corporate Plan 2020 – 2025 A Quality and Sustainable Environment
Financial Implications e.g. within existing budgets or funding identified	In budget for 2020/21 & 2021/22
Legal Implications (including human rights)	No
Risk Implications	As above
Equality Issues/EQIA assessment	No
Crime & Disorder	No
Every Child Matters	No

**URN:** 21-179  
**Subject** Dedication Plaques  
**Report to** Executive Leadership Team – 10 November 2021  
Environment Committee – 25 November 2021  
**Report by:** Head of Property and Asset Management



#### **SUBJECT MATTER**

A new policy is proposed in relation to dedication plaques on benches for roses bushes, trees, and other items around the borough. The Policy also identifies the proposal for a vase facility to be added to benches in the Gorleston Seafront location.

#### **RECOMMENDATIONS**

**That Members:**

1. Approve the policy for dedication plaques and vase provision in the borough.
2. Agree the new fee of £70 for the provision of a dedication vase. This fee and charge to form part of the annual fee and charge policy moving forward.

## **1. INTRODUCTION**

- 1.1. There are numerous public benches across the borough and many of which have had dedication plaques purchased by customers to commemorate events, identify favourite locations, and remember loved ones.
- 1.2. The Gorleston Seafront upper and lower promenade has some 255 benches and is a particularly popular location for requests for dedication plaques on benches. Benches are for public use and currently the operation of this scheme, other than the large benches on the Lower Promenade, allows one plaque per bench and no dedications of any kind to be left on or attached to the benches.
- 1.3. Historically people have left flowers and other memorabilia on the benches in Gorleston and from time to time these items are removed and left to the side of the bench for collection. Currently documentation issued at the time of any enquiry is clear that items must not be left on the bench as these are a public facility in an open amenity space and benches should be kept clear for public use.
- 1.4. Items do continue to be left on benches in this area and across the borough and there has been several complaints received around the volume and condition of some of the items left on the benches. This is a sensitive area and the council only undertakes removal when necessary although Health and Safety in relation to items left remains a challenge with glass vases, metal clips and sharp objects continuing to be left as memorials.



- 1.5. Following the removal of items plaque owners have expressed distress that the process by which these memorabilia are removal is unnecessary and have requested that a method by which some form of dedication can be left at the bench be considered particularly for the Gorleston area but available across the borough.
- 1.6. This report covers two areas, to formally agree the Policy for Dedication plaques for benches and associated memorials and to consider the option of including a vase for benches with a dedication plaque.

## **2. PROPOSAL**

- 2.1. The Policy identifies clarity around the purchase of plaques and makes clear that the bench always remains an asset of the council and must be clear and available for public enjoyment. The locations of these benches are not within memorial gardens but recognised public open spaces and therefore consideration must be given to this in all circumstances.
- 2.2. The proposal in relation to Gorleston puts forward an allowance within the policy for one vase per bench plaque to be purchased and placed on benches at the Gorleston seafront location. The proposal includes a design for a vase which would be fixed to the rear of the bench, with no sharp corners, alleviating any health and safety concerns. As has been mentioned the benches are public assets and as such, we do not currently allow any memorabilia to be placed on the bench, but this vase provision would allow for a small dedication to be left without impacting the use of the bench. The proposal of a vase if purchased by the plaque owner would provide a location for one floral dedication, no further memorabilia would be permitted on or around the benches and would be immediately removed.
- 2.3. It should be noted the council would still reserve the right to remove any floral arrangement from a vase if they become dilapidated.
- 2.4. For clarity a policy document attached, appendix 1, is suggested to ensure all purchasers of dedication plaques are aware of the restrictions in relation to these public benches. A signed application form will be completed and submitted for each purchase and confirms that purchasers understand the terms and conditions of purchase.
- 2.5. If the provision of a vase is permitted in relation to benches it is recommended that a maximum of one vase per bench be permitted (there are larger benches on the lower promenade at Gorleston which would be excluded from this option as multiple plaques are purchased on these benches) in line with the proposed policy.

## **3. FINANCIAL IMPLICATIONS**

- 3.1. In addition to the standard plaque fee a charge of £70 is proposed for the provision and installation of a vase. Installation must only be undertaken by the council as it is noted that the bench remains an asset of council ownership. Any damage or vandalism during the life of the vase, as with the plaque, would be the responsibility of the purchaser and would result in a fee for replacement.

- 3.2. The committee is asked to note that administrative costs in relation to the introduction of a vase will be incurred and the costs will therefore need to be monitored going forward and adjusted if necessary.
- 3.3. It is recommended that this fee form part of the fees and charges policy and reviewed annually in line with inflation.

#### **4. RISK IMPLICATIONS**

- 4.1. The utilisation of a vase will reduce the risk of injury from this installation and by installing on the rear of the bench will not restrict the use of the bench seat in any way. The ability for individuals to purchase a vase will enable flowers to be left discreetly by the owner of the plaque without impacting the general use of the bench.
- 4.2. The policy remains that dedications will be removed from any other part of the bench as soon as practical by the grounds maintenance and cleansing team.
- 4.3. All benches remain public assets of open space and therefore the need to ensure these benches are available unimpeded is of the highest importance in considering this provision.
- 4.4. All existing and new plaque owners will be provided with a copy of the policy and made aware of the availability of a vase should they wish to retrospectively purchase.

#### **5. CONCLUSIONS**

- 5.1. To adopt and confirm the attached policy in relation to dedication plaques for benches and to agree the proposal for a vase to be available for purchase with bench plaques. This provision will be at the discretion of the council and only available on a one vase per bench provision.
- 5.2. The fee and charge for the vase will require confirmation through Council and it is suggested that this be incorporated into the review of Fees and Charges in February 2022.
- 5.3. Should this provision be agreed contact will be attempted with all purchasers to provide information and offer the extra vase opportunity.

<b>Area for consideration</b>	<b>Comment</b>
Monitoring Officer Consultation	Included
Section 151 Officer Consultation	Included
Existing Council Policies See background papers	
Financial Implications	Considered and included
Legal Implications (including human rights)	None
Risk Implications	Covered within the report
Equality Issues/EQIA assessment	None
Details contained in strategy	
Crime & Disorder	None
Every Child Matters	None



## Policy

### Dedication Plaques

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<b>Date</b>	<b>31<sup>st</sup> October 2021</b>
<b>Document Status</b>	<b>Final</b>

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## **1. Overview**

The Council will facilitate the purchase and placement of dedication plaques on benches, with rosebushes, trees and associated items as identified together with and if required a vase on existing seats in the borough where appropriate opportunities exist.

## **2. Introduction**

The Council supports the principle of allowing dedication plaques on existing Council owned seats in the borough, but only when permission is sought and the location is approved, and any licence or installation fee is paid.

The public amenity space is a valued resource and its facilities are enjoyed by a wide range of people, so each application will be looked at to ascertain if an appropriate location is available and will not cause upset or distress to others using the facilities.

This policy will be regularly reviewed, and any amendments submitted to Members for approval.

All fees and charges are detailed separately and will be reviewed on an annual basis in line with the Fees and Charges Policy.

## **3. Objectives of the Policy**

- 3.1 The Council is seeking to ensure it is adopting a clear, measured and sympathetic approach to the management of its facilities which will take account of the contrasting needs of users.
- 3.2 This policy will also ensure that all dedication plaques have a common appearance, style and size and will not cause offence to others.
- 3.3 The Council, through this policy, will endeavour to offer the highest standard of service in undertaking its management and regulatory responsibilities.
- 3.4 Any complaints relating to the implementation of the policy will be dealt with through the Council's Complaints Procedure.

## **4. General Arrangements**

- 4.1 Applications for the installation of a dedication plaque on any Council owned seat shall be submitted in writing or email on the agreed form.
- 4.2 The Council does not permit the placing or burial of cremated human remains, or the scattering of human ashes in any of its public open spaces.
- 4.3 The Council does not permit the burial of pets or the scattering of pet ashes in any of its public open spaces.
- 4.4 One small vase can be purchased if required with each plaque and will be fixed to the rear of the seat. The Council accepts no liability for damage or theft of or from these vases and reserves the right to remove flowers if not managed by the applicant.



- 4.5. No other memorial tribute or mementoes, such as personal vases, statues, solar lights, obelisks, flowers, wreaths, balloons or other ornamentation should be placed on or around a seat, or other location. If this were to occur, the Council reserves the right to immediately remove and dispose of any such item.
- 4.6 Any dedication plaque and vase should be paid for by the applicant prior to installation, and the location agreed in writing.
- 4.7 All seats remain the property of the Council and operate as public seating. The Council will undertake maintenance on the seats within resources available and reserves the right to replace a seat when it has come to the end of its natural life. The style of the replacement seat may differ from the original one. Any dedication plaque on the seat at such time will be transferred to the replacement seat.
- 4.8 The Council accepts no liability for damage or theft of any dedication plaque or purchased vase from vandals or third parties. In this eventuality, any replacements can be purchased through the Council at an additional cost.
- 4.9 Dedication plaques on seats shall be made of brass or stainless steel and are of a typical size 60mmx175mm.
- 4.10 This size plaque allows four to five lines of text to be inscribed on the plaque and be easily read. Please note that the inscription on the plaques and the wording is subject to the approval of the Council.
- 4.11 All costs and procedures for such plaques are reviewed each year and will be for a 10-year dedication period. The renewal cost will be the cost that is determined at the end of this period.
- 4.12 It is the responsibility of an applicant to ensure that the Council is kept informed about their contact details. At the end of the dedication period, if the applicant cannot be contacted, then the plaque will be removed from the seat, and the space offered to a new applicant.

**Subject:** Playground and Open Space Audit - Update

**Report to:** Executive Leadership Team – 10<sup>th</sup> November 2021  
Environment Committee – 25<sup>th</sup> November 2021

**Report by:** Head of Property & Asset Management



## RECOMMENDATIONS

**That Committee: Note the update report with a view to considering options on receipt of the full audit in January 2022.**

### 1. BACKGROUND

- 1.1 As a Borough the Council has a significant number of Playgrounds. Some years ago, it was identified that an audit of facilities was required to fully understand provision and consider future options.
- 1.2 Early in 2021 it was agreed that the resource for this work would be passed to the Property and Asset Team. A part-time post was identified to undertake the audit and the post was filled in May 2021. The audit was to focus on Playgrounds only however as the work began it was clear that an audit of open space would also be beneficial and was added to the scope of the role.
- 1.3 Since the commencement of the audit a significant amount of information and data has been collated and this is now being finalised in readiness for the full report in January 2021. This report aims to update the Committee in relation to the information gathered, facilities available within each area and options to be put forward.

### 2. PLAYGROUND INFORMATION

- 2.1 Fields in Trust introduced in the early 1980's a range of terms to provide detailed technical guidance for authorities on what exact provision should be made for children's play. The terms were then widely adopted by both Planners and Play Practitioners, and today are universally used when it comes to planning for play.
- 2.2 Play areas therefore fall into several categories and for the purposes of the audit the data has been collected in relation to these categories. To explain further the definition of the categories are as follows:

<b>LAP</b>	Local Area for Play	A small area of open space specifically designated and primarily laid out for very young children to play close to
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		where they live i.e. within one minute's walking time. LAPs are designed to allow for ease of informal observation and supervision and primarily function to encourage informal play and social interaction for toddlers. The LAP requires no play equipment as such, relying more on demonstrative features indicating that play is positively encouraged.
<b>LEAP</b>	Locally Equipped Area for Play	<p>An area of open space specifically designed and laid out with features including equipment for children who are beginning to play independently. The number and nature of equipment and structures is a matter for local decision, though provision for a minimum number of six play experiences is recommended.</p> <p>Play features including equipment are an integral part of the LEAP and the attractiveness of such spaces, though it is also important that the space can be used for physical activity and games. LEAPs can also include landscaped areas of play; containing little formal equipment but imaginatively designed and contoured, using as far as is possible natural materials such as logs or boulders which create an attractive setting for play.</p>
<b>NEAP</b>	Neighbourhood Equipped Area of Play	This is an area of open space specifically designated, laid out and equipped mainly for older children but potentially with play opportunities for younger children as well. It can provide play equipment and a hard surface area for ball games or wheeled activities such as roller skating or cycling. It may provide other facilities such as a ramp for skateboarding, a rebound wall, and a shelter for meeting and socialising. NEAPs can often be combined with LEAP provision.
<b>MUGA</b>	Multi Use Games Area	Sports MUGAs are usually a steel anti vandal outdoor fenced area with built in goal post units for various types of sports games, such as <a href="#">football</a> , <a href="#">basketball</a> or <a href="#">tennis</a> .

2.3 Within the Borough there are a total of 98 play areas which are divided as follows:

Category	Definition	Total
<b>LAP</b>	Local Area for Play	15
<b>LEAP</b>	Locally Equipped Area for Play	46
<b>NEAP</b>	Neighbourhood Equipped Area of Play	21
<b>MUGA</b>	Multi use games areas	2
<b>OTHER</b>	Not categorised or not on Play Inspection Company Database i.e. splash park, putting green, basketball court.	14
<b>TOTAL SITES</b>		<b>98</b>

2.4 Although there are a total of 98 play areas not all within the Borough are owned by the council although all play areas are currently inspected by GYBC staff as part of a risk rated approach on a monthly, quarterly, and annual basis. Annually an external consultant inspection is undertaken to complete the inspection audit No reimbursement of costs is received from Parishes for this service.

2.5 The breakdown of ownership is as follows:



2.6 From the audit inspection to date the following overview points have been noted:

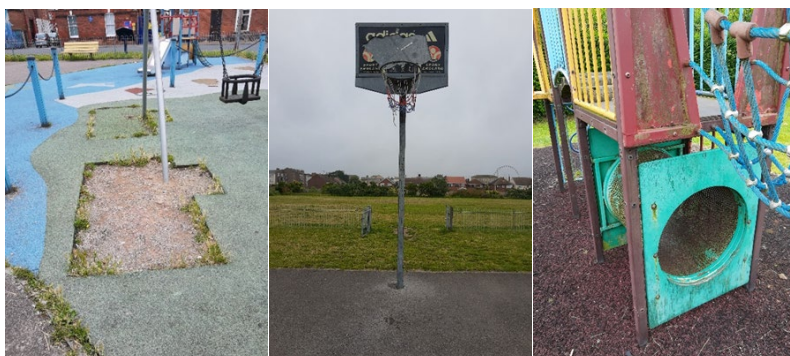
#### **Positives**

- There are good amounts of play provision around Borough.
- Many sites have fenced areas with dog grids or gates.

#### **Areas for Improvement**

- In general, play areas are beginning to look tired and equipment is becoming dated so lacks visual appeal.
- Surfaces are deteriorating in play areas and MUGA sites including issues with weeds, loose material.
- Lack of disabled access paths and entry routes into areas and overall lack of inclusive play equipment.
- Review of seating and bin provision would be beneficial.

Example of findings representative of a number of locations:





- 2.7 Many of the LAP and LEAP sites have been installed with the benefit of S106 funding and it is predominantly these sites which are in most need of consideration as part of the full audit.

### 3. OPEN SPACE INFORMATION

- 3.1 Open space information has been gathered based on previous and updated mapping data, database information and through site visits. The following calculations can be drawn from the types of open space sites included in the 2021 audit. These figures include GYBC, Parish and Highways owned sites identified from present and previous data sources.

Type of Space	Definition	Total
Informal Amenity Greenspace	Informal recreation spaces, communal green spaces in and around housing and village greens.	155
Parks and Gardens	Formal green spaces including urban parks, country parks, forest parks and formal gardens.	33

- 3.2 The information being gathered should be viewed as a base level listing within the site categories. The quality of these open spaces is defined through a scoring system for planning references and measured in relation to quality and quantity:

- **Quality :-** The needs, expectations and experiences of users, and the design, management and maintenance of facilities.
- **Quantity :-** A measure of the amount of open space provision which is necessary to meet the needs of the local (and in some cases the regional) catchment.

- 3.3 In undertaking the audit the following findings have been identified:

- Not all spaces have disabled access.
- Not every space has visual appeal, bins, benches.
- Space specific maintenance varies – grass, tree and shrubs, bins and litter picking.
- Safety of Spaces varies – some secluded spaces, dark areas. Overall lack of lighting and CCTV.
- Some areas have been adopted by In Bloom Groups, Volunteer Groups, Local Residents and Individuals.

#### 4. NEXT STEPS

- 4.1 As can be seen from the above snapshot of information the volume of data is considerable. To enable the Committee to fully consider the impacts of location, type of facility, amount of equipment and age range the information for both play areas and open spaces is being collected and collated by Parish for the rural areas and Ward for the urban areas. This information has already been circulated to Ward members for those areas to ensure the information is as complete as possible. The data will be presented in as comprehensive a format as possible to enable next steps to be considered and agreed.

##### **Playgrounds:**




- 4.2 The audit aims to raise considerations around the following areas:

- refurbishment of sites
- overall numbers of sites
- redesign of facilities
- reuse of areas.

In some cases, a light touch refurbishment may be all that is needed to bring new life to a facility. An example of this is the work undertaken at St. Georges Park although the safety surfacing was expensive and delayed by undertaking a repaint and refurbishment of equipment as the same time the facility feels like new without any change of equipment.



- 4.3 Other options will consider how different types of play could be considered to reduce long-term management costs but provide interesting and new types of play space for areas. Some examples are below:

<p><b>Natural Play Areas</b></p>  <p>Local Example – Trafalgar Grange</p>	 <ul style="list-style-type: none"> <li>• Willow/timber/ boulder structures.</li> <li>• Bark/ Grass/ Sand surfaces.</li> <li>• Nature areas - Bug Hotels, Wildflower areas.</li> </ul>
<p><b>Inclusive Play</b></p>  <p>Local example – Beaconsfield</p>	<p><b>Natural Inclusive Play</b></p> 
<p><b>Outdoor Gyms - movable</b></p>  <p>Urban outdoor gym areas</p>	<p><b>Outdoor Gyms - static equipment</b></p> 
<p><b>Urban Drainage Play Parks</b></p>  <p>Example : West Gorton Community Park - Manchester</p>	<p><b>Activity Trails</b></p> 
<p><b>Integrated Play Areas</b></p>  <p>Natural</p>	<p><b>Integrated Climbing Wall</b></p>  <p>Urban – Stratford Olympic Park Landscape</p>

4.4 Traditionally the Borough has installed mechanical play but as can be seen from the above options there are a range of natural play provisions which may benefit consideration for the future.

4.5 Funding will be one of the more challenging areas for any development of these facilities but there are a few channels which could be explored to deliver improvements including but not

limited to: further S106 developments, Lottery bids, match funding from parishes, community funds and Housing Associations, donations, advertising, sponsorship as well as council funding.

### Open Space:

- 4.6 For Open Space the options to be considered are similar
- overall amount of space
  - possible changes of use
  - sale of land or redevelopment.
- 4.7 It is important to ensure that space is protected from development where necessary and that space is accessible by all including the installation of assets such as dropped kerb entry points, level paths, raised borders and sensory spaces. Many of the spaces would benefit from improvements in relation to design, lighting, and CCTV.
- 4.8 Consideration of the environment and rewilding areas would also be beneficial leaving spaces to nature with additional tree planting and wildflower areas. The introduction of clear recreational spaces and pocket parks could also assist with the improved use of the open space provision.
- 4.9 Ongoing maintenance must be considered as part of any options together with drainage, drought, or flood tolerant spaces.
- 4.10 As with play space funding will continue to be challenging however a number of options can be considered including support from volunteer and community groups, Parish Council support and alternative use of some space. Some examples from other locations are shown below.





## 5. CONCLUSIONS

- 5.1 The full report will be available to the Committee in January 2022, but the information provided is to identify some of the opportunities and challenges with the overall volume of play and open space in the borough together with the current condition.
- 5.2 The full report will include a high-level detail in relation to each Ward (Urban) and Parish (Rural) including the number of play spaces and type, numbers and types of play equipment and overall condition, area of open space and location, type of space. Maps with play and open space marked will be provided as part of each pack to enable Members to better consider overall provision and location.
- 5.3 In order to ensure the information is as complete as possible each Ward/Parish area will be provided to Ward Councillors ahead of the January meeting for review and update ahead of the full January report.
- 5.4 Information will be provided in relation to current costs, capital funding and S106 funding.
- 5.5 Inspections and repairs and maintenance have continued on all Playgrounds throughout this audit with annual inspections now due in February 2022.
- 5.6 Information from the complete audit will be input to the Concerto Asset Management System.
- 5.7 Members are asked to note the information within the report as a preview to the detailed audit information to be presented in January 2022.

Area for consideration	Comment
Monitoring Officer Consultation	Noted
Section 151 Officer Consultation	Noted
Existing Council Policies	See background papers
Financial Implications - within existing budgets	Monthly, quarterly, and annual inspections.
Legal Implications (including human rights)	Considered
Risk Implications	No
Equality Issues/EQIA assessment	Yes
Details contained in strategy	Yes
Crime & Disorder	Yes
Every Child Matters	Yes