ENVIRONMENTAL MANAGEMENT PLAN

New Wharf, Brighton Road, Shoreham-by-Sea, West Sussex BN43 6RN

Prepared by

Integrated Skills Limited

For

Kendall Bros (Portsmouth) Ltd

February 2015

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CONTENTS

1. INTRODUCTION 1
Site Setting 1
Scope of Report 1
Operations 1

2. AIR QUALITY 2
Introduction 2
Source 2
Pathway 2
Receptors 2
Assessment 3
Mitigation 3
Complaints 4

3. NOISE 5
Introduction 5
Source 5
Pathway 5
Receptors 5
Monitoring 5
Assessment 5
Mitigation 6
Controlled Explosions 6
Complaints 6

4. OTHER MATTERS 7
Vibrations 7
Lighting 7
Vehicle Wheel Cleaning 7
Surface Water Management 7
Maintenance of Access Road 8
Trade Effluent 8
Oils and Fuels 8
Plant and Equipment 8
Annual Review 8
Implementation Plan 9

5. COMPLAINTS 10

1. INTRODUCTION

1.1 This EMP has been prepared in accordance with Condition 2 of the planning permission. This was granted at appeal (APP/P3800/A/14/2224956). Condition 2 states "*Unless within three months of the date of this Decision a revised Environmental Management Plan, is submitted in writing to the Local Planning Authority for approval, and unless the approved scheme is implemented in accordance with the approved timetable, the use of the site shall cease until such time as an Environmental Plan is approved an implemented. The Environmental Management Plan shall include details of the sprinkler system, drop heights, stockpile height management, and details of wind speeds and directions that trigger specific mitigation measures. The scheme shall include a timetable for the provision of any equipment, the completion of any physical works, and the implementation of the measures required by the scheme*."

Site Setting

1.2 The site lies within the western arm of Shoreham Harbour, in between the A259 Brighton Road to the north and the River Adur to the south. The site is located adjacent to other similar port/wharf industrial operations. To the immediate east, is a fishmongers.

1.3 There is another industrial unit immediately adjoining the site to the west, beyond which the land is currently unoccupied. Planning permission has recently been granted to redevelop this area for a mixed retail and residential use.

1.4 The nearest residential properties are located approximately 95m south, across the River Adur. The properties comprise mainly of 3-storey blocks of flats.

1.5 This section of the A259 is occupied by large retail outlets such as B&Q and Halfords.

1.6 The site is not located within any statutory landscape, ecological, historic or other such designations.

1.7 The site does not lie within an Air Quality Management Area.

Scope of Report

1.8 Environmental Management covers matters including, air quality (dust), noise, vibration, lighting, mud/debris on the highway, surface water management, oil and fuels and general management.

Operations

1.9 The site imports marine dredged aggregates. These are stockpiled on site prior to the concrete batching operation. The aggregates will be loaded in to a dedicated silo. The cement is loaded into a separate silo. The process of concrete batching is a fully automated system, which provides the correct ratio of raw material depending on the specific demand of concrete required.

1.10 Cement is imported to the site in road vehicles and directly loaded in to the silo. The silos are fitted with filter mechanisms and high level indicators to control the process. The mixed concrete is loaded directly into a HGV and is a wet batch process.

1.11 The applicant has acquired ISO14001, a certified Environmental Management System. This is an independently audited system which demonstrates out how the company implement and manage procedures to meet environmental legislation.

2. AIR QUALITY

Introduction

2.1 It is useful to identify the source-pathway-receptor linkages in order to assess the potential impact associated with dust emissions.

Source

2.2 Dust may be generated for general site activities. The importation of marine dredge aggregates is generally a wet process. The aggregates are unloaded from the ship onto the wharf.

2.3 During drier conditions, the aggregates may dry and be exposed to prevailing wind conditions that may result in some off-site dust emissions.

2.4 The concrete batching process is fully enclosed and therefore this process is not likely to cause dust emissions.

2.5 Dust may therefore be generated from storage and loading. Vehicle movements can also cause dust particles to be raised from the ground.

Pathway

2.6 Dust particles can be released through mechanical agitation, which are then carried by the wind. The impact of dust is therefore associated with prevailing weather conditions, e.g. wind speed and direction. Wind Rose data has been obtained for Shoreham which is provided in Appendix A. This shows that the prevailing wind in the locality is from the South West.

2.7 Significant nuisance is only likely to occur when the dust covers surfaces and is visible in contrast with adjacent clean areas, especially when it happens regularly.

2.8 The deposition rate of dust particles depends on their mass and their shape. Heavy, rounder particles will settle out more rapidly than lighter, flatter material of the same volume. With reference to Environment Agency Guidance, large particles (30μm) responsible for most dust annoyance generally deposit within 100m of the source.

Receptors

2.9 Receptors can include residential (R) and commercial (C) properties. The main receptors are listed in Table 1. The distance is measured from the nearest part of the operational boundary to the boundary of the receptor.

Table 1 – Receptors

Name	Distance from Site	Direction from Site
Emerald Quay (R)	127m	South west
Anchor Close (R)	101m	South
Britannia Avenue (R)	180m	South east
Fishmonger (C)	15m	East
Halfords (C)	40m	North
Outline consent for new residential development	30m	West

Assessment

2.10 With reference to the Wind Rose data, the prevailing wind in this locality is the south westerly. The frequency of wind from the north increases during the winter months, but the south westerly wind remains prevalent throughout the year.

2.11 The process of handling marine dredged aggregates is wet. Any prolonged storage of aggregates may dry out, and during certain conditions may give rise to dust emissions. However this is most likely to occur during the summer periods, when the prevailing wind is the south westerly, with the northerly wind accounting for less than 5% of the wind direction distribution. The likelihood of dust generation during the drier summer period affecting properties south of the site is considered to be low.

Mitigation

2.12 There may be some occasions when stored material becomes dry and dust may be generate through the action of wind whip on the surface of the stockpile. If this occurs when the wind is from the north, then dust particles may escape beyond the site boundary. Typically, such particles would fall out within 100m from the source.

2.13 It is proposed to implement and continue the following mitigation measures:

- Damping down stockpiles and the access road during dry conditions using sprinkler system. Two new rain guns will be positioned as shown on Figure 1. The drawing provides the extent of coverage that will be achieved by these rain guns. The rain guns will be positioned at 2.5m high and have a trajectory that will cover the material stockpiles*. The rain guns will be controlled from the weighbridge. During the operation hours, the Site Manager will instigate the use of the rain guns when conditions are such that dust may be raised, e.g. dry and windy. The rain guns can be programmed to discharge at a time rate, for example every 20 minutes, or manually if conditions require increased dampening. The rain guns can also be programmed to operate when the site is not manned. This will be dependent on the amount and type of material being stored and also the weather forecast.

- Daily recording of weather conditions.
    - A weather station will be installed on site and can be programmed to alarm when the wind speed averages more than 9m/s over a 15 minute period. If these conditions exist and the alarm is activated the Site Manager will ensure that the loading operations cease.
- Speed restrictions on vehicles travelling within the site.
- Effective preventative and on-going maintenance of all plant on site.
- Maintenance of wheel washing facilities.
- All site vehicles leave via the wheel washing facilities.
- Management of stockpile heights, see below.
- Daily inspections by site manager, details to be recorded in Site Diary.
- Maintaining the Site Diary with accurate records of any changes in the operations that may give rise to short term dust emissions.

*Generic specification details for a rain gun system are provided in Appendix C. This shows that the minimum reach is 38.3m, which will achieve a water height of 14.7m. This will be sufficient for this site.

2.14 In terms of stockpile management, the aggregate bays are defined by 3m high concrete walls. These provide the containment for materials such as sand, 10mm aggregates and 20mm aggregates. The nature of storing aggregates within bays could result in a maximum storage height of materials of 4m. This will be within the central part of the bay.

2.15 The aggregates unloaded from the ship are stockpiled adjacent to the berth. The unloading process can store material up to 8m. However this material has been marine dredged and is wet. The material is relocated within the site as soon as practicable and it is continuous process as the material can be replenished on a daily basis.

Complaints

2.16 The complaint procedure set out in Chapter 5 will also apply to any complaints regarding dust.

3. NOISE

Introduction

3.1 It is useful to identify the source-pathway-receptor linkages in order to assess the potential impact associated with noise emissions.

Source

3.2 Noise may be generated from the following activities:

- Ships discharging marine dredged aggregates
- Processing of materials
- Loading/unloading materials
- Reversing alarms
- Vehicle movements
- General maintenance
- Controlled explosions

Pathway

3.3 Noise is carried through the atmosphere and therefore prevailing wind conditions will have an impact on the direction that noise will travel.

Receptors

3.4 Receptors can include residential (R) and commercial (C) properties. The main receptors are listed in Table 1. The distance is measured from the nearest part of the operational boundary to the boundary of the receptor.

Monitoring

Noise monitoring has been recently undertaken by Acoustic Design Services. The purpose of the exercise was to monitor the existing noise associated with New Wharf and assess the potential impact on the adjoining new development. However, at this stage, there is no information about the design and layout of the development. The report also compares the current noise levels at the properties south of the River Adur, with a 1998 noise report that was prepared as part of the first planning application for Kendalls. The ADS report is provided separately.

Assessment

3.5 The unloading of marine dredged aggregates is subject to tides and therefore takes place between the hours of 07.00 and 2300. However, it must be noted that this is an operational port and therefore unloading of supplies can take place without planning permission at any time.

3.6 The permitted operational hours of the site are as follows:

07.00-18.00 Monday to Friday

07.00-12.00 Saturday

The use of the aggregate processing plant shall not commence before 08.00.

No working, including the maintenance of plant and machinery shall take place on Sunday or public holiday.

3.7 The noise monitoring report confirmed that the existing noise levels at the properties south of the river are consistent with the predictions made in 1998. The report goes on to recognise that the New Wharf will remain a commercial property until such time as an application is made for redevelopment.

Mitigation

3.8 The following measures will be implemented at the site

- Operations of plant and machinery only during the permitted operational hours.
- All plant and machinery to be switched off when not in use.
- Regular maintenance of all plant and machinery to ensure continued effective use.
- Speed limit of 5mph will be imposed on all site vehicles.
- Operating plant in a noise sensitive manner (avoiding unnecessary throttling back and acceleration).
- Maintaining the site diary with accurate records of any changes in the operations that may give rise to short term noise emissions.
- Daily recording of weather conditions, as above.

Controlled Explosions

3.9 Controlled Explosions are carried in the event that ordnance is encountered in the dredged aggregates. There is a specific procedure in place for dealing with ordnance. Kendall's first contact the Police to notify them that ordnance has been found. The police will then contact the Explosive Ordnance Disposal team to undertake a controlled explosion.

3.10 Given that the controlled explosions need to be carried out by expert personnel and at relatively short notice, it is difficult to notify all residents that an explosion will take place. A prior notification system is therefore proposed. This will provide residents living opposite an opportunity to register their contact details with Kendalls in order to be provided a warning that a controlled explosion is to take place. This can either be by email or text. A review of the contact list will be undertaken as part of the annual review of this plan. In addition, a record will be kept of all controlled explosions and confirmation that residents were notified.

Complaints

3.11 The complaint procedure set out in Chapter 5 will apply to any complaints regarding noise.

4. OTHER MATTERS

Vibrations

4.1 Vibrations are not typically associated with the concrete batching process. However, the process of screening aggregates uses vibrating screens to separate aggregates. Loaded screens do not give rise to discernible vibrations if they are correctly installed and maintained.

4.2 To date, the applicant is not aware of any complaints relating to vibration.

Lighting

4.3 Site lighting will be required for operational and safety reasons during the operational hours in darkness. However, the lighting has been designed as the minimum required for operational safety.

4.4 The site is located within a commercial area, beyond which the A259 and other commercial occupants provide lighting.

Vehicle Wheel Cleaning

4.5 Vehicles delivering / collecting aggregates will be required to leave the site with clean wheels. The processing of aggregates is a relatively clean, enclosed operation. However sand and grit may become attached to vehicle wheels which will then leave the site. Also, during dry conditions, the movement of HGVs along the surface may give rise to dust.

4.6 Concrete mixing vehicles are generally clean, as the process of loading concrete is fully enclosed.

4.7 Wheel washing facilities are provided on the site and all vehicles will be checked prior to leaving the site to ensure the wheels are clean.

Surface Water Management

4.8 The site has a concrete surface, which has a natural run toward the wharf front.

4.9 Surface water arising on site may come from a number of sources including aggregate discharged from ships, aggregate processing, dust suppression and concrete batching.

4.10 Marine aggregate cargoes discharged from ships are generally drained of free water before the discharging operation takes place and therefore the amount of retained water in the discharge is limited. The aggregates will continue to drain once stocked on the wharf front with the remaining clean salt water draining back to the sea by the existing drainage points.

4.11 Water for the aggregate process is naturally fresh mains water and is applied to the aggregate process by spray nozzles on the screening decks. It is then recirculated until its chloride value is above the value for further use when it will be returned to the sea.

4.12 Water that is lost from the grading process is drained to a central point from where it is pumped back into the water system for re-use. Water from the stockpile areas will drain back into the sea.

4.13 The concrete batching process does not involve significant quantities of water outside of the mixing process, and typically water is only used for cleaning. The amount of water used is not significant and any such water will be collected for re-use.

Maintenance of Access Road

4.14 The access road is of concrete construction and is suitable for the use. Any potholes or ruts could cause localized increases in noise levels. It is therefore inspected regularly and repairs are undertaken as necessary.

4.15 The access road is also kept clean to prevent mud and debris being tracked by vehicles.

Trade Effluent

4.16 There will be no trade effluent discharge from the site. The offices are connected to the main foul system.

Oils and Fuels

4.17 Gas oil will be required for site plant. The fuel tank will be sited in a bunded area with 110% storage capacity. The floor and walls of the bund will be impervious to oil and water. All pipes are vented downwards.

4.18 Oil and grease fro lubrication will only be held in small volumes in the general storage facility

4.19 Used oil will be put stored in an appropriate container prior to off-site disposal.

4.20 Any minor spillages will be cleaned straight away using oil absorbent materials or sand and will be stored prior to off-site transports to an appropriate facility.

Plant and Equipment

4.21 All plant and equipment will be maintained in accordance with the manufacture's specification. There is a plant maintenance programme to ensure all plant and machinery remains fit for purpose.

Annual Review

4.22 This EMP will be reviewed on an annual basis and updated as necessary to reflect any changes in the operation or changes to neighbouring occupants. This is most pertinent to the outline consent that has been granted on the adjoining land to the west. However, is must be noted that the commercial port has been in existence for a number of years and although it has been identified as a possible regeneration area within the district's Local Plan, this has not yet been adopted and more importantly the landowner has not given consent to redevelop the land.

4.23 The applicant is seeking permission to operate at the site to serve out the term of their lease agreement, whilst searching for alternative premises and also pending the outcome of the consultation process on the Local Plan and subsequent alterations and adoption. However, this EMP can be reviewed on an annual basis, and updated accordingly. The implementation of the Complaints Procedure may trigger an earlier review of the EMP if subsequent investigations identify a recurring problem on site.

Implementation Plan

4.24 It is proposed to implement the actions in accordance with the following timetable:

Action	**Timescale**
Install Weather Station	Immediate
Install rain guns	Within 3 months of approval from WSCC
Issue letter regarding contact details for controlled explosion warnings	Immediate
Update data base with contact details for controlled explosion warnings	Within one month from issue of letter

5. COMPLAINTS

5.1 In order to provide a swift response to any complaints, the site must be made aware of such complaints as soon as possible. Complaints can be made directly to Kendall's and the details noted on the Complaint Form, see appendix B. Complainants may also contact West Sussex County Council directly. In which case, WSCC must notify Kendall's in order for the complaint to be logged and investigated.

5.2 To avoid involving numerous parties, all residents will be encouraged to contact WSCC as a primary contact. This EMP will be send to Shoreham Port Authority and Adur District Council, but is it considered that having one primary contact in the form of WSCC will be the most effective way of ensure complaints are dealt with swiftly.

Complaints Procedure and Action Plan

Responsibility	Action	Timescale
Complainant	Contact Kendalls directly, as below or West Sussex County Council: Planning.enforcement@westsussex.gov.uk 01243 642 188	Immediately
WSCC	Notify the Site Manager as soon as possible after receiving complaint. Primary Contact Details: Site: Kevin Ryan-Kilby Site Telephone Number: 01273 446 900 Secondary Contact Details: Head Office: Paul Tallents Telephone Number:02392 662801	Immediately (or within the same working day, or next working day if complaint received out of office hours).
Complaint recipient	Kendalls will record details of the complaint in the Site Diary and also on the complaint log, see Appendix B.	On receipt of complaint from WSCC or direct from source
Site Manager	Will investigate the complaint by reviewing the Site Diary and operational procedures. The investigation procedure is provided in Appendix B. It must be noted that in the event that there is a problem that is giving rise to a potential nuisance, that activity may be temporarily suspended, depending on the circumstances.	Within 2 working days of complaint being received
Site Manager	Will report findings to WSCC or direct to complainant, including the source, explanation for the event and measures to control and prevent occurrence.	Within 5 days of complaint being received

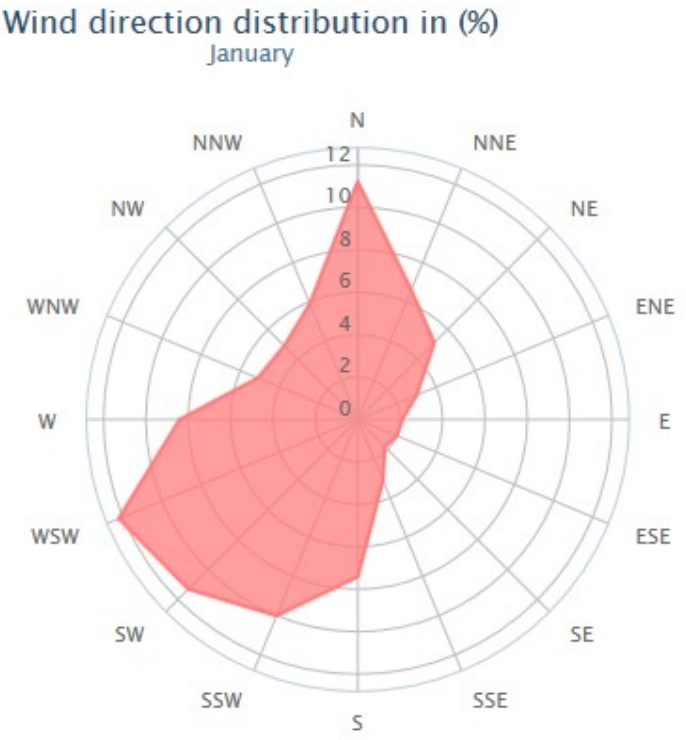
5.3 To enable the Site Manager to provide appropriate corrective action and correlate any complaint with prevailing weather conditions, an indication of the source of the complainant is necessary. When recording a complaint, the location from which the complaint has been received will be required.

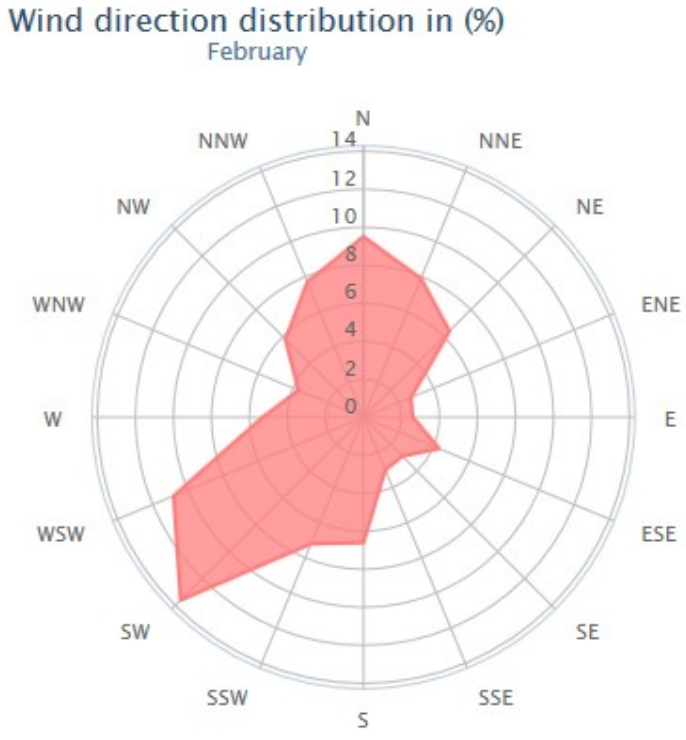
5.4 If the Site Manager identifies that there were possible external sources of dust; this will be recorded in the Site Diary and the information reported to WSCC. This will be based on the Site Diary records as well as observed operations occurring external to the site.

5.5 If the Site Manager identifies that the nuisance source was from a site activity and occurred due to poor site practices; the Site Manager will initiate additional training to members of staff with regards to nuisance management. This will take the form of a toolbox talk training session with the Site Manager. All staff have a training record and this will be recorded. The member of staff will be notified immediately of the event and of measures to prevent a recurrence. The toolbox talk will be more detailed and will be undertaken within one working week.

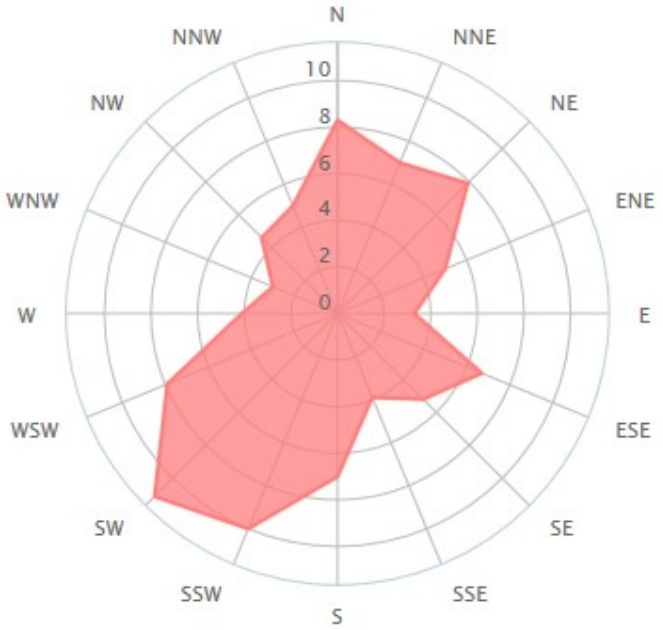
5.6 If the nature of the complaint is due to a technical issue, such a breakdown of plant or equipment, the Site Manager will make arrangements for specialist contractors to repair the plant or equipment. If necessary, equipment may be hired if the problem requires significant attention. During this time, staff will be asked to be more vigilant regarding matters that may give rise to nuisance such as dust or noise.

Appendix A – Wind Rose data for Shoreham-by-Sea

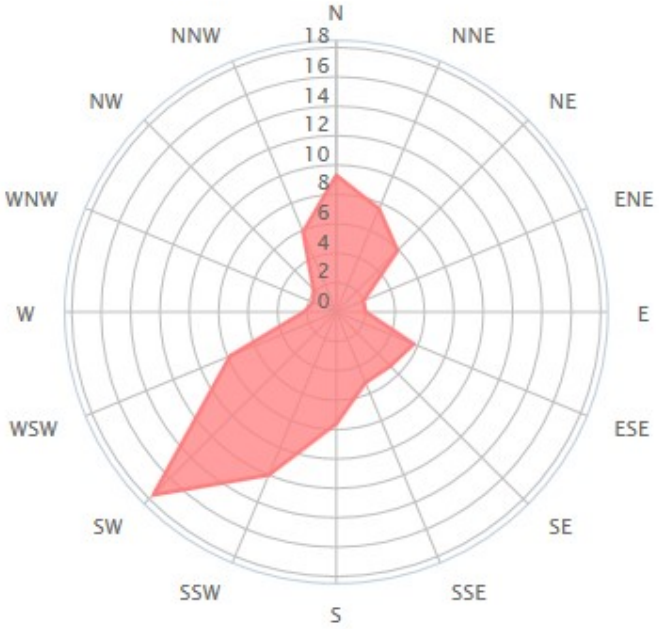


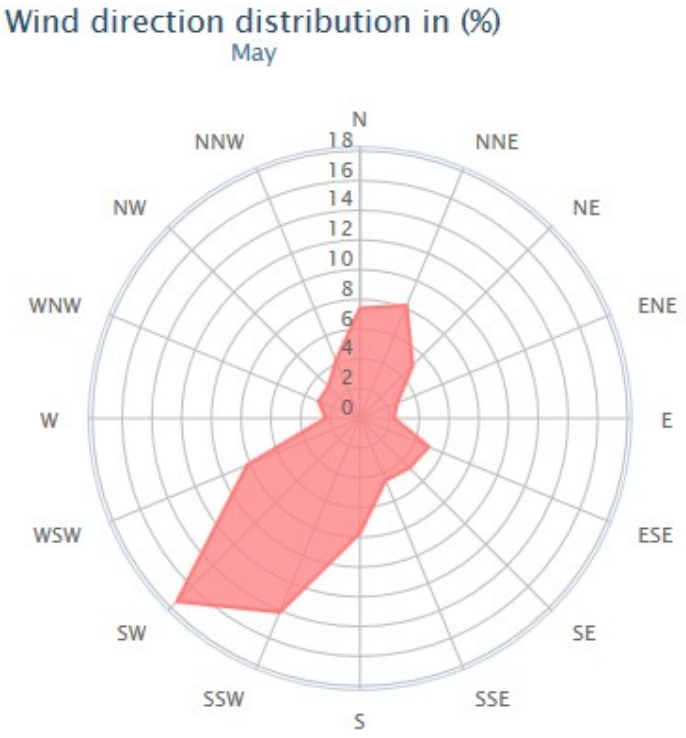


Wind direction distribution in (%)
March



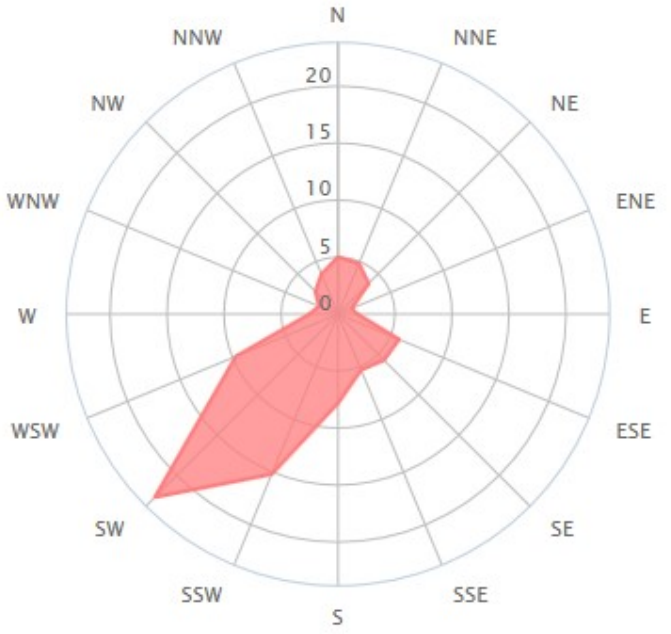
Wind direction distribution in (%)
April




Wind direction distribution in (%)
May
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
18
16
14
12
10
8
6
4
2
0

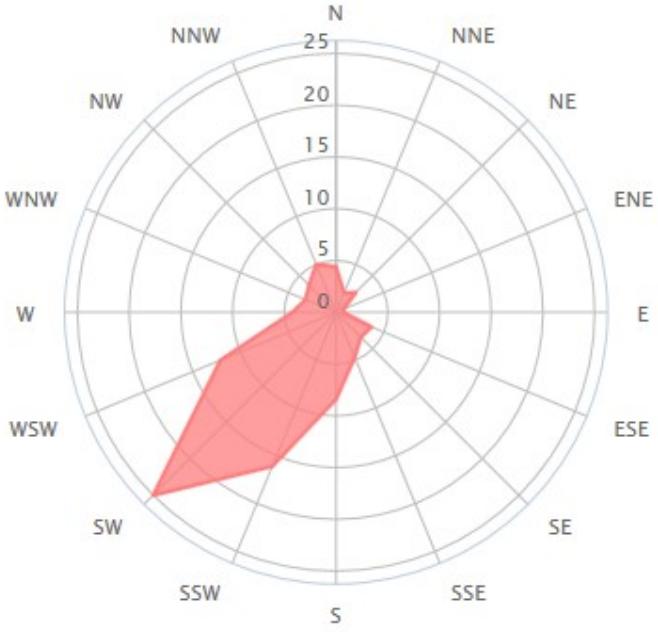
Wind direction distribution in (%)

June



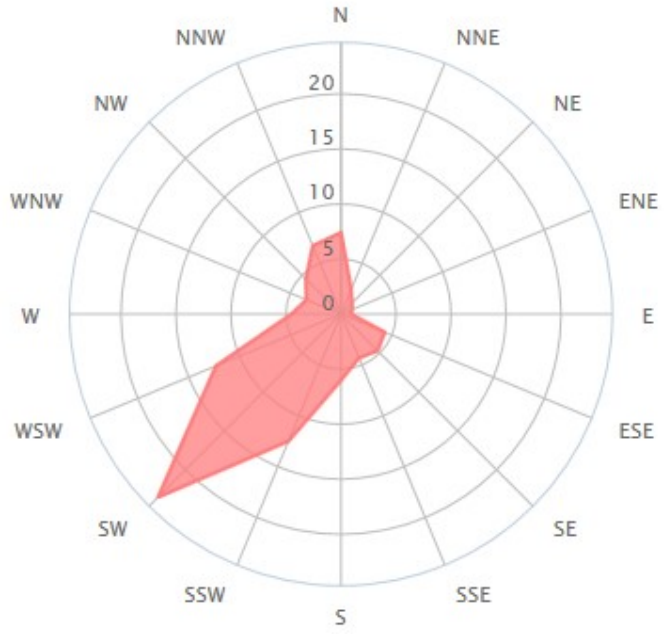
Wind direction distribution in (%)

July



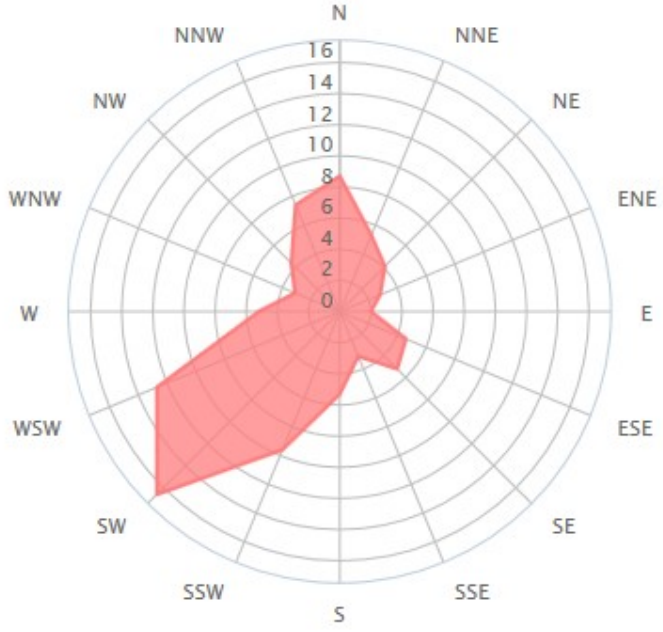
Wind direction distribution in (%)

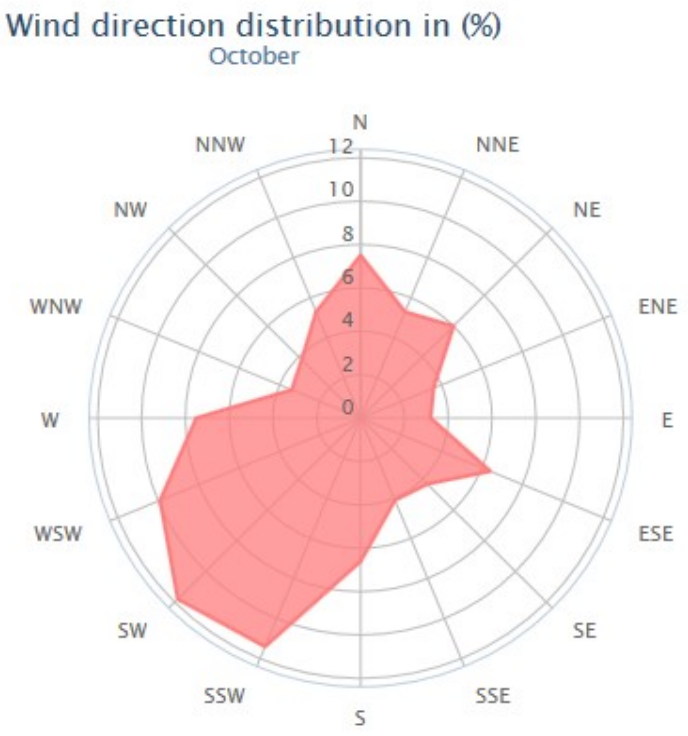
August

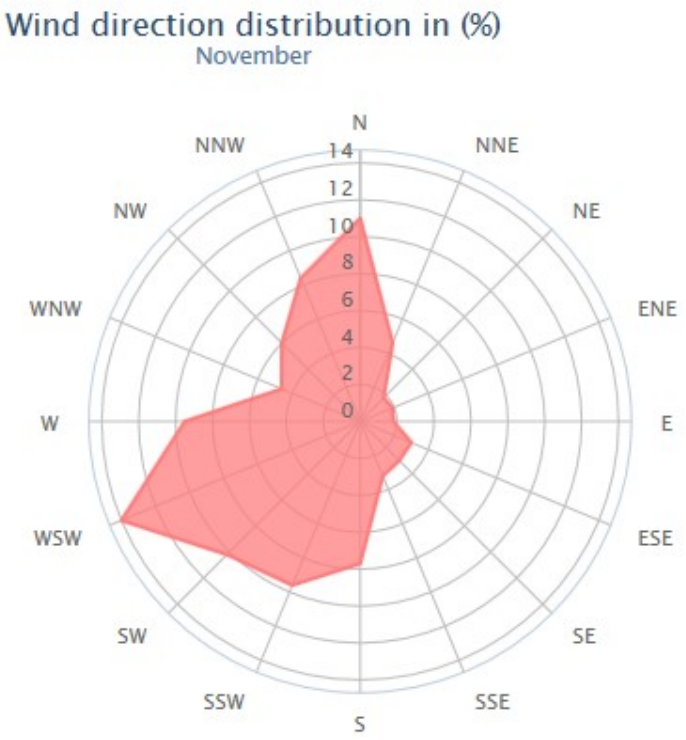


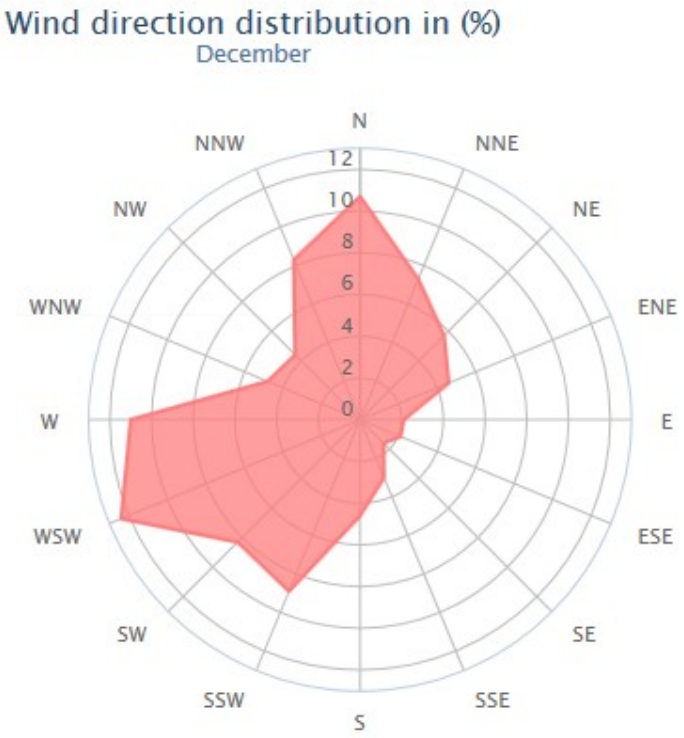
Wind direction distribution in (%)

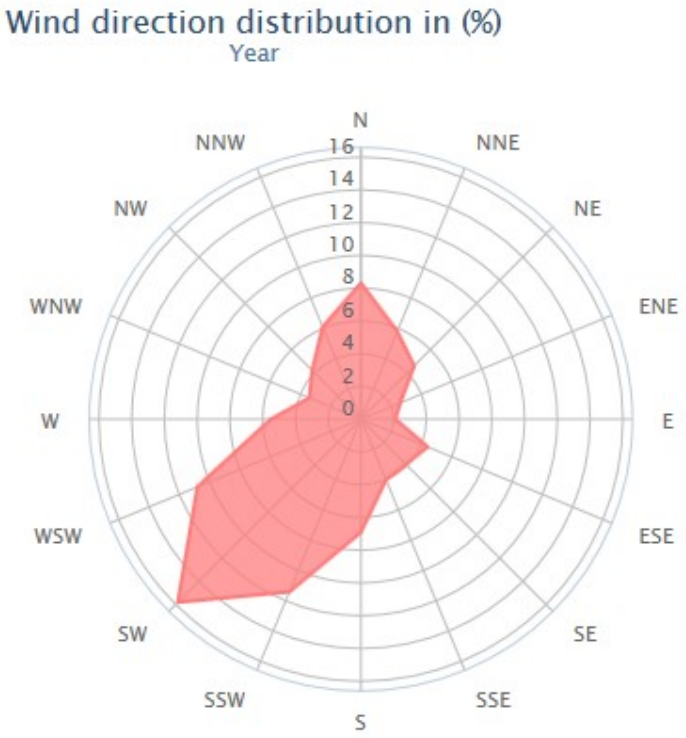
September




Wind direction distribution in (%)
October
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
12
10
8
6
4
2
0


Wind direction distribution in (%)
November
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
14
12
10
8
6
4
2
0


Wind direction distribution in (%)
December
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
12
10
8
6
4
2
0


Wind direction distribution in (%)
Year
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
16
14
12
10
8
6
4
2
0

Appendix B - Complaints Investigation Procedure

This complaints procedure must be completed following the receipt of a complaint from a member of the public, representative of the council or the Environment Agency. You must report any complaint to the Site Manager.

IDENTIFICATION

Name of person in receipt of complaint: .....Job title: .....

Date Complaint Received: .....

Description of Complaint (use continuation sheet as necessary) including time, date of occurrence and nature

Inform complainant that details will remain confidential

Name of Complainant (including job title and company):

Contact Details:

INVESTIGATION

Description of Investigation, Outcome and any Corrective Action (use continuation sheet as necessary)

Any follow up work required: Yes ☐ ☐ No If yes, please describe:

Report Findings to Complaint Yes☐ Date.....

Declaration of Investigation Complete

Name of Notifier: ..... Name of Site Manager.....
Signature: ..... Signature.....
Date: ..... Date: .....