
Second Interim Report: Monitoring of
Ambient Air Quality adjacent to
ENVA Ireland Limited, Portlaoise,
EPA Licence Reg. No. W0184-01

ENVIRONMENTAL PROTECTION AGENCY

The Environmental Protection Agency (EPA) is responsible for protecting and improving the environment as a valuable asset for the people of Ireland. We are committed to protecting people and the environment from the harmful effects of radiation and pollution.

The work of the EPA can be divided into three main areas:

Regulation: *We implement effective regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.*

Knowledge: *We provide high quality, targeted and timely environmental data, information and assessment to inform decision making at all levels.*

Advocacy: *We work with others to advocate for a clean, productive and well protected environment and for sustainable environmental behaviour.*

Our Responsibilities

Licensing

We regulate the following activities so that they do not endanger human health or harm the environment:

- waste facilities (*e.g. landfills, incinerators, waste transfer stations*);
- large scale industrial activities (*e.g. pharmaceutical, cement manufacturing, power plants*);
- intensive agriculture (*e.g. pigs, poultry*);
- the contained use and controlled release of Genetically Modified Organisms (*GMOs*);
- sources of ionising radiation (*e.g. x-ray and radiotherapy equipment, industrial sources*);
- large petrol storage facilities;
- waste water discharges;
- dumping at sea activities.

National Environmental Enforcement

- Conducting an annual programme of audits and inspections of EPA licensed facilities.
- Overseeing local authorities' environmental protection responsibilities.
- Supervising the supply of drinking water by public water suppliers.
- Working with local authorities and other agencies to tackle environmental crime by co-ordinating a national enforcement network, targeting offenders and overseeing remediation.
- Enforcing Regulations such as Waste Electrical and Electronic Equipment (WEEE), Restriction of Hazardous Substances (RoHS) and substances that deplete the ozone layer.
- Prosecuting those who flout environmental law and damage the environment.

Water Management

- Monitoring and reporting on the quality of rivers, lakes, transitional and coastal waters of Ireland and groundwaters; measuring water levels and river flows.
- National coordination and oversight of the Water Framework Directive.
- Monitoring and reporting on Bathing Water Quality.

Monitoring, Analysing and Reporting on the Environment

- Monitoring air quality and implementing the EU Clean Air for Europe (CAFÉ) Directive.
- Independent reporting to inform decision making by national and local government (*e.g. periodic reporting on the State of Ireland's Environment and Indicator Reports*).

Regulating Ireland's Greenhouse Gas Emissions

- Preparing Ireland's greenhouse gas inventories and projections.
- Implementing the Emissions Trading Directive, for over 100 of the largest producers of carbon dioxide in Ireland.

Environmental Research and Development

- Funding environmental research to identify pressures, inform policy and provide solutions in the areas of climate, water and sustainability.

Strategic Environmental Assessment

- Assessing the impact of proposed plans and programmes on the Irish environment (*e.g. major development plans*).

Radiological Protection

- Monitoring radiation levels, assessing exposure of people in Ireland to ionising radiation.
- Assisting in developing national plans for emergencies arising from nuclear accidents.
- Monitoring developments abroad relating to nuclear installations and radiological safety.
- Providing, or overseeing the provision of, specialist radiation protection services.

Guidance, Accessible Information and Education

- Providing advice and guidance to industry and the public on environmental and radiological protection topics.
- Providing timely and easily accessible environmental information to encourage public participation in environmental decision-making (*e.g. My Local Environment, Radon Maps*).
- Advising Government on matters relating to radiological safety and emergency response.
- Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

Awareness Raising and Behavioural Change

- Generating greater environmental awareness and influencing positive behavioural change by supporting businesses, communities and householders to become more resource efficient.
- Promoting radon testing in homes and workplaces and encouraging remediation where necessary.

Management and structure of the EPA

The EPA is managed by a full time Board, consisting of a Director General and five Directors. The work is carried out across five Offices:

- Office of Environmental Sustainability
- Office of Environmental Enforcement
- Office of Evidence and Assessment
- Office of Radiological Protection
- Office of Communications and Corporate Services

The EPA is assisted by an Advisory Committee of twelve members who meet regularly to discuss issues of concern and provide advice to the Board.



**Second Interim Status Report:
Monitoring of ambient air quality adjacent to
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Environmental Protection Agency, June 2016

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Executive Summary

This report provides results from monitoring of air quality (specifically for volatile organic compounds) adjacent to ENVA Ireland Limited, Portlaoise, over the period from March to the end of December 2015. Monitoring had previously been completed in Portlaoise Town from September to December 2014, and the results of this monitoring are presented in the 'Interim status report on the Assessment of Emissions to Air at ENVA Ireland Limited, Portlaoise', published by the EPA in April 2015 and available on the EPA website. The information is reported in Section 6 and Appendix C of the Interim Report. The EPA undertook to continue monitoring air quality in the vicinity of the ENVA site and this current report provides an update to the initial interim report.

This monitoring was carried out as part of EPA investigations into emissions from the ENVA plant. The plant carries out the reprocessing of waste oils, and part of the activity involves the heating and agitation (by sparging with air) of the oils to remove water, with emissions from this part of the activity being highlighted as an area of concern by complainants.

Monitoring of VOCs adjacent to the ENVA site has been carried out continuously by the EPA since March 2015, and this report provides details of the findings of this monitoring for the period from March 2015 to the end of December 2015, based on more than 7,000 hours of monitoring using reference equipment calibrated and maintained by the EPA. In summary, the monitoring indicates that the levels of indicator VOCs (benzene, toluene, ethylbenzene and xylene) adjacent to the site are well within relevant air quality guidelines and standards throughout the period of monitoring. Analysis of the monitoring data in conjunction with wind direction data indicates that winds from the direction of the ENVA facility can result in increased VOC concentrations, however the measured concentrations are well within relevant health based guidelines/standards.

Notwithstanding this, odour nuisance as a result of emissions from the site, associated with emissions from the heated tanks, was identified during 2015. The licensee was prosecuted by the EPA in relation this odour nuisance and was convicted in the district court in December 2015. The EPA will continue to measure air quality and carry out odour assessments in the vicinity of the site and investigate complaints. The EPA will take appropriate enforcement action, including further legal action if necessary, to ensure that residents are not exposed to nuisance odours from this facility.

Both the initial Interim Report and this update are publicly available on the EPA website at www.epa.ie.

Introduction

Monitoring of hydrocarbons (benzene, toluene, xylene and ethylbenzene, known as BTEX) was carried out at an easterly location in Portlaoise Town for the period from September to December 2014. Subsequently, monitoring for BTEX commenced in Clonminam in March 2015 at a site directly adjacent to and north of the ENVA site, and this monitoring is ongoing at the time of preparation of this report. Monitoring of BTEX is a commonly used approach for the determination of hydrocarbon concentrations in ambient air and is used by the EPA at other monitoring locations within the national ambient air quality monitoring network.

This report provides an update on the results of the monitoring adjacent to the ENVA site over the period from March 2015, up to and including December 2015.

This monitoring is being completed in order to assess and monitor the impact of emissions from the ENVA site on local air quality and is not specifically for the purposes of determining whether or not the emissions are causing odour nuisance in the environs of the site, with specific additional ongoing odour investigation activities being carried out to assess odour impact associated with emissions from the site. Odour nuisance as a result of emissions from the site were identified during 2015. The licensee was prosecuted by the EPA in relation this odour nuisance and was convicted in the district court in December 2015. The EPA's investigation file remains open in relation to this site. The EPA will continue to measure air quality and carry out odour assessments in the vicinity of the site and investigate complaints. The EPA will take appropriate enforcement action, including further legal action if necessary, to ensure that residents are not exposed to nuisance odours from this facility.

Table 1 below presents a range of relevant air quality standards/guidelines for the measured pollutants which allow for assessment of the significance of the measured concentrations at the two monitoring sites.

Table 1: Relevant Air Quality Limits and Guidelines

Parameter	Interpretation	Value ($\mu\text{g}/\text{m}^3$)	Source
Benzene	Annual average	5	EU Limit Value
	Short-term (1 hour)	320	Derived from US NIOSH 15 minute recommended exposure limit
Toluene	Annual average	1,910	UK Environment Agency
	Weekly Average	260	WHO Guideline Value
	Short-term (1 hour) Environmental Assessment Levels For Air (For The Protection Of Human Health)	8,000	WHO Guideline Value, UK Environment Agency
Ethylbenzene	Annual average	4,410	UK Environment Agency
	Short-term (1 hour) Environmental Assessment Levels For Air (For The Protection Of Human Health)	55,200	UK Environment Agency
Xylene	Annual Average	2,200	UK Environment Agency Guideline Value
	Short-term (1 hour) Environmental Assessment Levels For Air (For The Protection Of Human Health)	66,200	UK Environment Agency

Brief Overview of Oil Reprocessing Activity

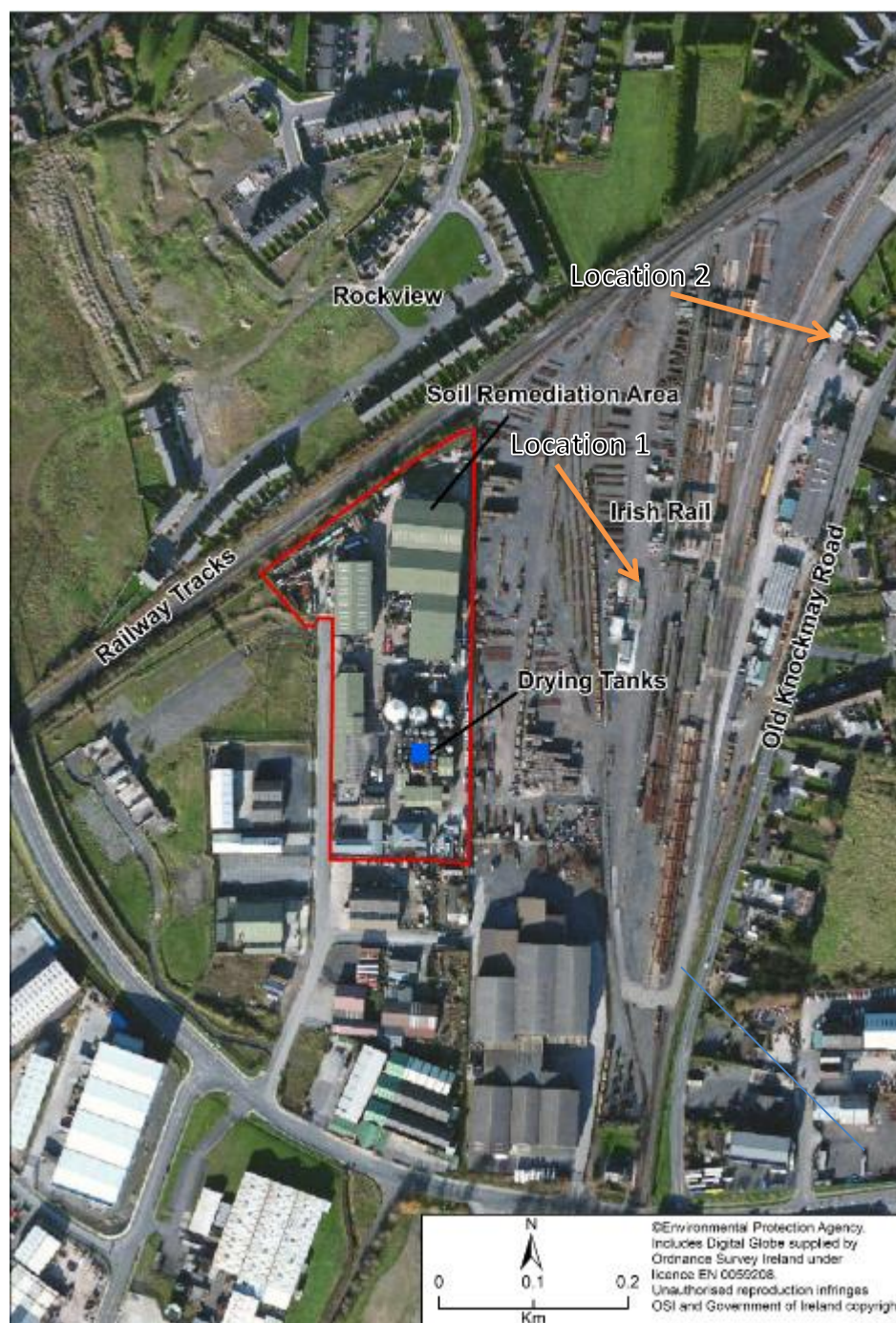
The oil reprocessing activity involves a number of steps including initial acceptance of waste oils, preliminary dewatering (typically involving heating of the oils to 50 – 80°C), filtering and a final drying step to remove residual water from the oil. The drying step involves heating of the oils up to temperatures of 90 – 102 °C and sparging of air through the oils to mix/agitate the oil which assists in the removal of water from the oils. Further information on the oil reprocessing activity is included in the 'Interim status report on the Assessment of Emissions to Air at ENVA Ireland Limited, Portlaoise', published by the EPA in April 2015 and available on the EPA website.

Monitoring Location and Equipment

Location

During the period from March to the end of December 2015 the monitoring equipment has been located at two different positions on the Irish Rail site adjacent to ENVA, as indicated in Figure 1. Location 1 was used from 9th March 2015 up to September 25th 2015. Location 2 has been used from 25th September to date (monitoring is ongoing). The location of the drying tanks is also shown in Figure 1 as these are considered to be the main potential source of emissions. The distance from the heated tanks to the nearest residence in Rockview (to the west of the site) is approximately 200 metres, while residences to the east on The Old Knockmay Road are at a similar distance from the tanks. This compares to the distance from the heated tanks to Monitoring Location 1 of approximately 175 metres. Monitoring Location 2 is approximately 370 metres from the heated tanks, which is similar to the distance to the houses in the northern part of the Rockview Estate.

Figure 1: Map of ENVA and surrounding area (site boundary outlined in red)



Equipment

The monitoring was carried out using a Synspec GC955 analyser which employs the standard reference method for analysis of these compounds, and is widely used throughout Europe for monitoring of BTEX (benzene, toluene, ethylbenzene, xylene) compounds in ambient air. Operation, management and calibration of the analyser was carried out directly by EPA personnel, and over the period of monitoring there were no operational issues or malfunctions experienced with the equipment, and no loss of data (outside of planned maintenance/calibration periods). The EPA air monitoring laboratory is accredited to the ISO17025 standard for calibration of gas analysers by the Irish National Accreditation Board. Calibrations were carried out regularly by EPA personnel and no significant drift was noted in the performance of the analyser.

Summary Data

The tables below provide the summary results for the entire 2015 monitoring period, and for each month individually. The monthly tables include details on the number of hours during which the 'air sparging' activity took place at the site. The air sparging phase is associated with the greatest potential for emissions of hydrocarbons from the oil reprocessing activity and as such gives an indication of the level of activity on the site during the period. The 'Max (1 hour)' figure is the single highest hourly concentration measured over the period, while the 'Average' is the average of all measurements made during the period.

In all cases the measured concentrations are below the relevant guideline values. As referenced in the introduction, these findings do not relate to the potential for odour nuisance as a result of the emissions.

Benzene is the pollutant of most concern of these BTEX parameters, and has the lowest limit value of these hydrocarbons, with a statutory EU annual average limit value of $5 \mu\text{g}/\text{m}^3$. For comparison, the latest EPA published data for BTEX at other locations indicates an annual average concentration of $0.94 \mu\text{g}/\text{m}^3$ in Dublin (Rathmines, measured concentrations are likely to be related to traffic emissions and other combustion sources such as boilers) and $0.09 \mu\text{g}/\text{m}^3$ in Kilkenny (Seville Lodge). Table 13 below presents concentration data for Rathmines and Kilkenny and also concentrations for two of these pollutants as measured during a monitoring campaign at an industrial location in the UK (data provided by the UK Environment Agency). The monitoring in the UK was completed in an industrial area which also included an oil reprocessing installation.

Table 2: Summary data for March to December 2015

	Benzene	Toluene	Ethylbenzene	m+p-Xylene	o-Xylene
	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
Max (1 hour)	17.3	215.8	54.2	110.8	42.6
1-hour guideline	320	8,000	55,200	66,200	66,200
% of guideline	5.4	2.7	0.1	0.2	0.1
Average	0.7	2.7	1.2	2.5	0.9
Annual avg guideline	5.0	1,910	4,410	2,200	2,200
% of annual guideline	13.6	0.1	0.0	0.1	0.0

Table 3: Summary data for March 2015

	Benzene	Toluene	Ethlybenzene	m+p-Xylene	o-Xylene	Total Air Sparging in month
	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	Hours
Max (1 hour)	5.5	50.3	40.0	70.8	27.7	420
1-hour guideline	320	8,000	55,200	66,200	66,200	
% of guideline	1.7	0.6	0.1	0.1	0.0	
Average	1.3	3.4	2.6	4.0	1.8	
Annual avg. guideline	5	1,910	4,410	2,200	2,200	
% of annual guideline	25.8	0.2	0.1	0.2	0.1	

Table 4: Summary data for April 2015

	Benzene	Toluene	Ethlybenzene	m+p-Xylene	o-Xylene	Total Air Sparging in month
	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	Hours
Max (1 hour)	8.1	215.8	39.3	110.8	31.5	601
1-hour guideline	320	8,000	55,200	66,200	66,200	
% of guideline	2.5	2.7	0.1	0.2	0.0	
Average	1.0	4.2	1.7	3.4	1.3	
Annual avg guideline	5.0	1,910	4,410	2,200	2,200	
% of annual guideline	20.3	0.2	0.0	0.2	0.1	

Table 5: Summary data for May 2015

	Benzene	Toluene	Ethlybenzene	m+p-Xylene	o-Xylene	Total Air Sparging in month
	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	Hours
Max (1 hour)	3.6	33.8	18.9	32.4	11.3	692
1-hour guideline	320	8,000	55,200	66,200	66,200	
% of guideline	1.1	0.4	0.0	0.0	0.0	
Average	0.5	3.1	1.8	3.2	1.3	
Annual avg. guideline	5.0	1,910	4,410	2,200	2,200	
% of annual guideline	9.5	0.2	0.0	0.1	0.1	

Table 6: Summary data for June 2015

	Benzene	Toluene	Ethlybenzene	m+p-Xylene	o-Xylene	Total Air Sparging in month
	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	Hours
Max (1 hour)	4.5	98.0	54.2	97.1	42.6	632
1-hour guideline	320	8,000	55,200	66,200	66,200	
% of guideline	1.4	1.2	0.1	0.1	0.1	
Average	0.4	4.1	2.0	4.0	1.6	
Annual avg. guideline	5.0	1,910	4,410	2,200	2,200	
% of annual guideline	8.7	0.2	0.0	0.2	0.1	

Table 7: Summary data for July 2015

	Benzene	Toluene	Ethlybenzene	m+p-Xylene	o-Xylene	Total Air Sparging in month
	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	Hours
Max (1 hour)	6.0	86.1	24.8	53.8	18.8	355
1-hour guideline	320.0	8,000	55,200	66,200	66,200	
% of guideline	1.9	1.1	0.0	0.1	0.0	
Average	0.4	3.1	1.0	2.8	0.9	
Annual avg. guideline	5.0	1,910	4,410	2,200	2,200	
% of annual guideline	7.4	0.2	0.0	0.1	0.0	

Table 8: Summary data for August 2015

	Benzene	Toluene	Ethlybenzene	m+p-Xylene	o-Xylene	Total Air Sparging in month
	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	Hours
Max (1 hour)	14.7	104.5	19.0	48.2	15.8	822
1-hour guideline	320	8,000	55,200	66,200	66,200	
% of guideline	4.6	1.3	0.0	0.1	0.0	
Average	0.4	3.3	1.2	3.5	1.2	
Annual avg. guideline	5.0	1,910	4,410	2,200	2,200	
% of annual guideline	8.8	0.2	0.0	0.2	0.1	

Table 9: Summary data for September 2015

	Benzene	Toluene	Ethlybenzene	m+p-Xylene	o-Xylene	Total Air Sparging in month
	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	Hours
Max (1 hour)	17.3	211.3	30.0	77.5	28.5	269
1-hour guideline	320	8,000	55,200	66,200	66,200	
% of guideline	5.4	2.6	0.1	0.1	0.0	
Average	0.6	2.2	0.7	2.3	0.7	
Annual avg guideline	5.0	1,910	4,410	2,200	2,200	
% of annual guideline	11.7	0.1	0.0	0.1	0.0	

Table 10: Summary data for October 2015

	Benzene	Toluene	Ethlybenzene	m+p-Xylene	o-Xylene	Total Air Sparging in month
	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	Hours
Max (1 hour)	4.9	12.3	8.5	13.6	4.4	189
1-hour guideline	320	8,000	55,200	66,200	66,200	
% of guideline	1.5	0.2	0.0	0.0	0.0	
Average	0.7	1.1	0.3	0.6	0.2	
Annual avg guideline	5.0	1,910	4,410	2,200	2,200	
% of annual guideline	14.6	0.1	0.0	0.0	0.0	

Table 11: Summary data for November 2015

November	Benzene	Toluene	Ethlybenzene	m+p-Xylene	o-Xylene	Total Air Sparging in month
	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	Hours
Max (1 hour)	17.1	39.9	16.4	26.8	16.0	362
1-hour guideline	320	8,000	55,200	66,200	66,200	
% of guideline	5.3	0.5	0.0	0.0	0.0	
Average	0.9	1.8	0.6	1.5	0.5	
Annual avg guideline	5.0	1,910	4,410	2,200	2,200	
% of annual guideline	18.8	0.1	0.0	0.1	0.0	

Table 12: Summary data for December 2015

	Benzene	Toluene	Ethlybenzene	m+p-Xylene	o-Xylene	Total Air Sparging in month
	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	Hours
Max (1 hour)	6.2	33.5	13.9	39.1	12.6	183
1-hour guideline	320	8,000	55,200	66,200	66,200	
% of guideline	1.9	0.4	0.0	0.1	0.0	
Average	0.7	1.0	0.2	0.6	0.2	
Annual avg guideline	5.0	1,910	4,410	2,200	2,200	
% of annual guideline	13.7	0.1	0.0	0.0	0.0	

Table 13: Comparative results for other locations

	Benzene $\mu\text{g}/\text{m}^3$	Toluene $\mu\text{g}/\text{m}^3$	Ethylbenzene $\mu\text{g}/\text{m}^3$	m- and p-Xylene $\mu\text{g}/\text{m}^3$	o-Xylene $\mu\text{g}/\text{m}^3$
Long Term Averages					
Adjacent to ENVA 2015 (as per Table 2)	0.7	2.7	1.2	2.5	0.9
Rathmines Annual mean 2014	0.94	2.07	0.28	1.61	0.41
Kilkenny Annual Mean 2014	0.09	0.06	-	-	-
UK Industrial site Average 2012/2013	1.13	6.75	-	-	-
Portlaoise Town Average 2014	0.33	0.65	0.08	0.23	0.08
Long Term Guideline Value	5	1,910	4,410	2,200	2,200
Short Term Averages					
Adjacent to ENVA 2015 (as per Table 2)	17.3	215.8	54.2	110.8	42.6
Rathmines Hourly Max 2014	4.7	11.55	1.83	7.78	3.12
UK Industrial site 30 minute maximum	12.4	144	-	-	-
Portlaoise Town Hourly Maximum 2014	17.63	26.39	3.45	16.32	4.95
Short Term Guideline Value	320	8,000	55,200	66,200	66,200

Influence of Wind Direction on Measured Concentrations

Appendix 1 provides wind roses for the period from March to December 2015 (inclusive), and also for each individual month. These wind roses indicate the direction from which the wind was coming.

In addition, the measured concentrations of each of the BTEX parameters have been plotted against wind direction to determine the impact of emissions from ENVA on the BTEX concentrations measured adjacent to the site. For the emissions from ENVA to impact on the monitoring location, a wind direction from the 220 – 240 degrees sector is required (for both locations).

Plots are presented below for each of the 5 measured parameters. For 4 of the parameters (ethylbenzene, toluene, m+p-xylene and o-xylene) there is a clear relationship between winds from the direction of ENVA and the measured levels of these pollutants. Whilst the concentrations of the pollutants are below the guideline value it is clear that emissions from ENVA are consistent with increased concentrations of these pollutants.

For benzene, the highest average concentrations are actually noted when winds are from the north east (i.e. not related to ENVA), see Figure 2 below. This indicates that there are other local sources of benzene, which could include combustion sources (such as transport) or emissions from local commercial/industrial activities. The plot also indicates that winds coming from the direction of the ENVA site result in an increased level of benzene concentrations at the monitoring location, but this increase is not as pronounced as the peak associated with north easterly winds. In all cases the measured values are below the relevant guideline values.

Figure 2: Pollution concentrations based on wind direction – benzene ($\mu\text{g}/\text{m}^3$)

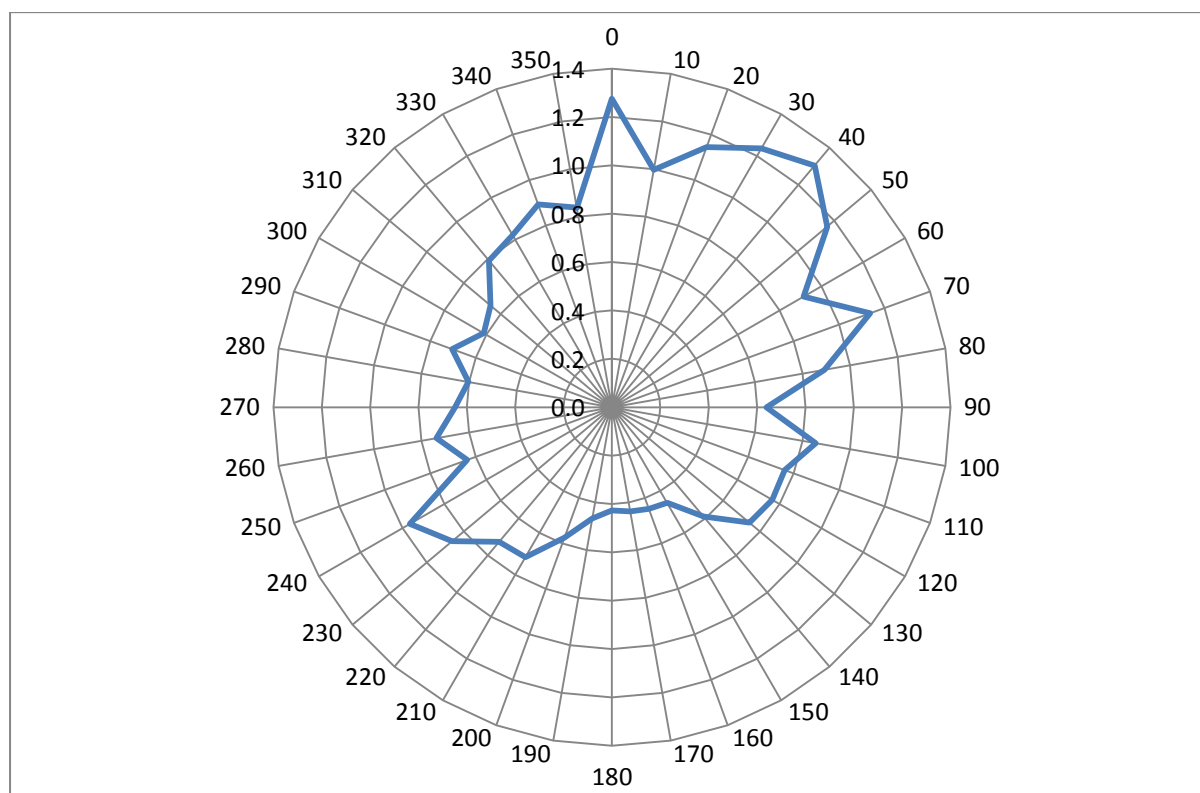


Figure 3: Pollution concentrations based on wind direction – toluene ($\mu\text{g}/\text{m}^3$)

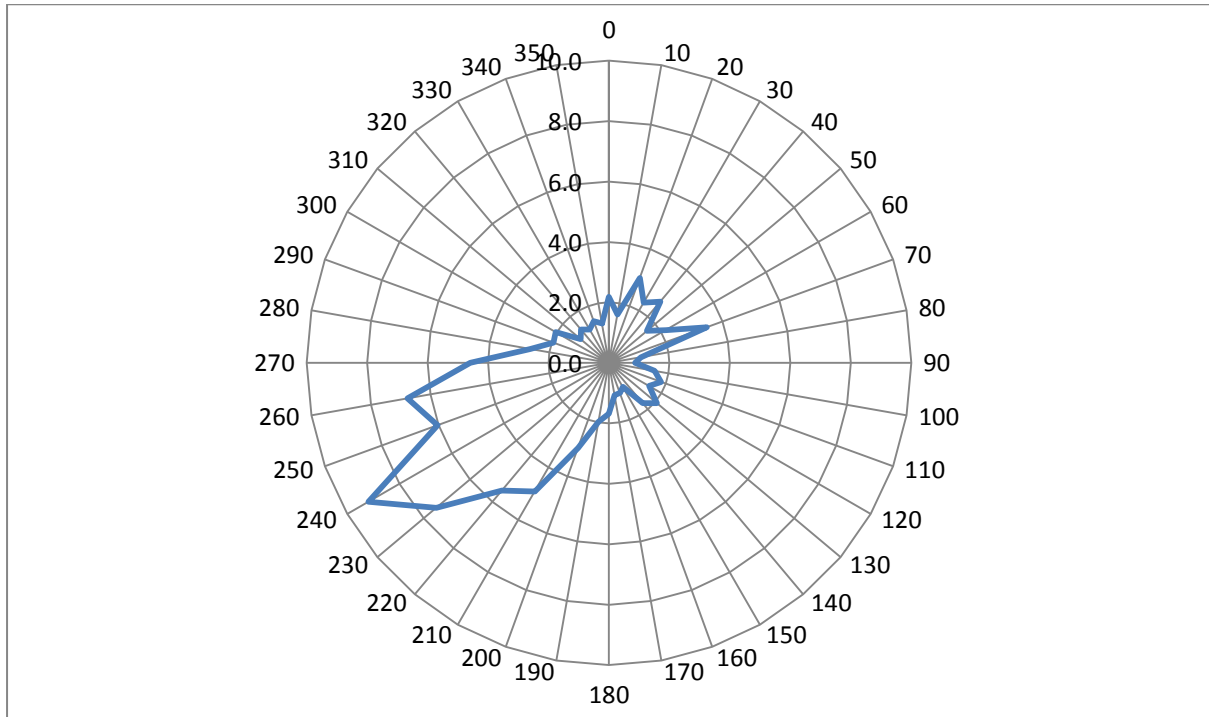


Figure 4: Pollution concentrations based on wind direction – ethylbenzene ($\mu\text{g}/\text{m}^3$)

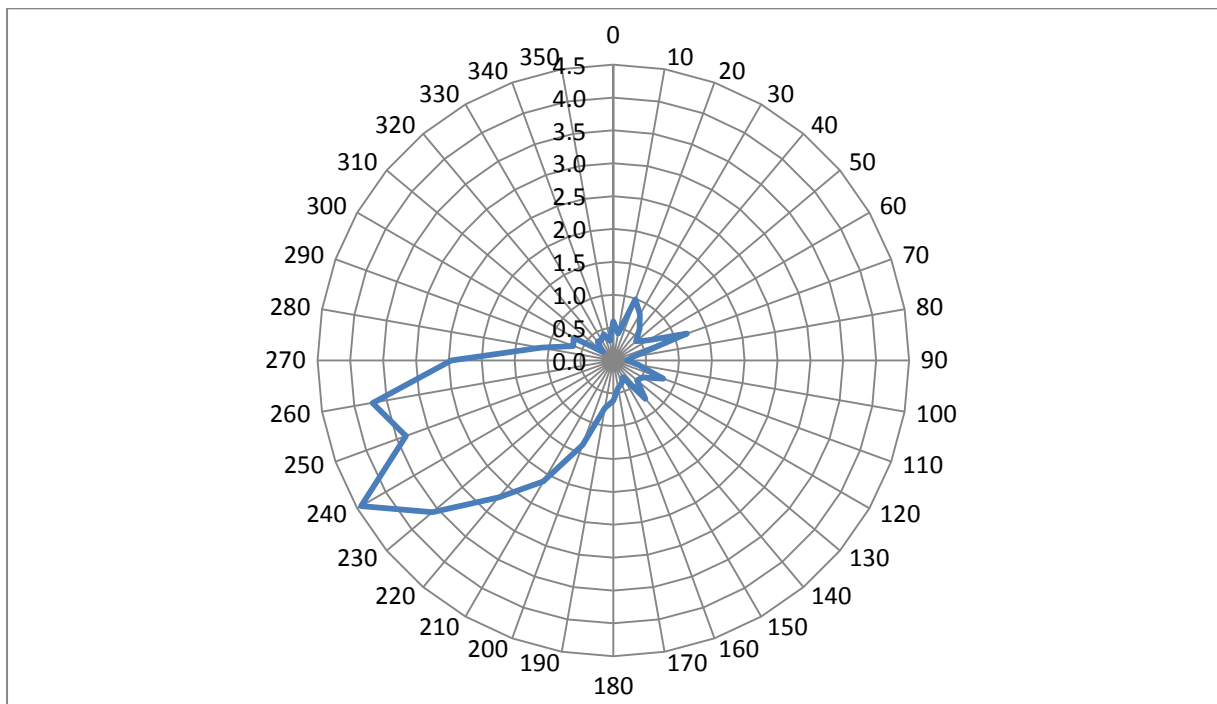


Figure 5: Pollution concentrations based on wind direction – m+-p-xylene ($\mu\text{g}/\text{m}^3$)

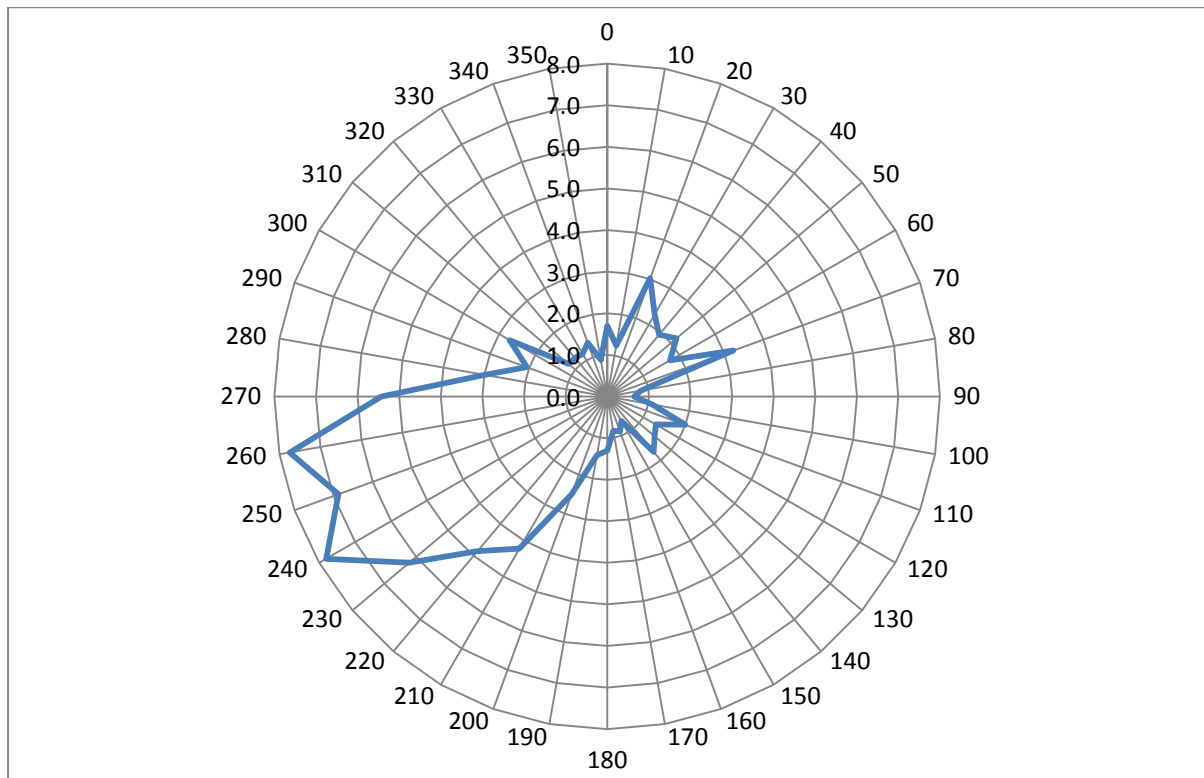
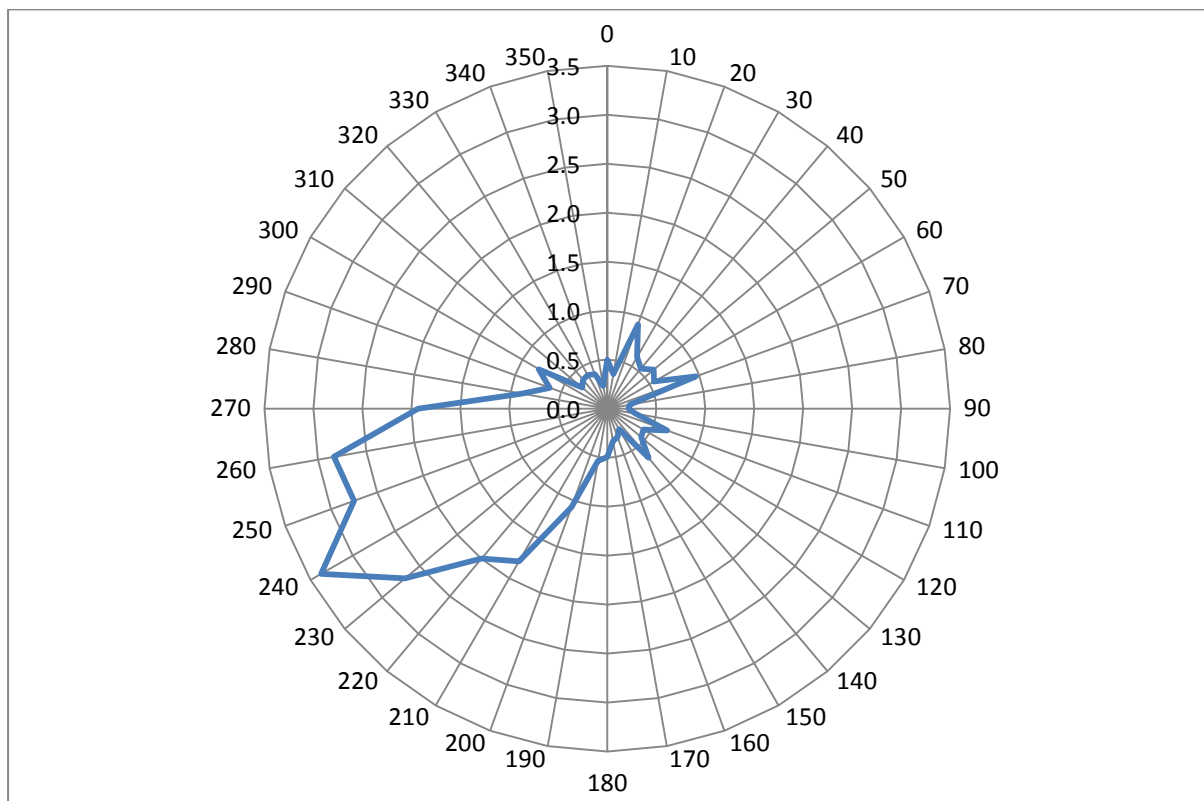


Figure 6: Pollution concentrations based on wind direction – o-xylene ($\mu\text{g}/\text{m}^3$)



Summary Findings & Next Steps

The results from 10 months of monitoring of BTEX adjacent to the ENVA site indicate that the measured levels of these pollutants are within relevant health based air quality guideline levels.

Analysis of wind direction and measured pollutant concentrations indicate that winds from the direction of the ENVA site result in increased BTEX concentrations and indicate that the site is having an impact on the measured results; however in all cases the measured concentrations remain within the guideline values. Analysis of wind direction data also indicate local sources of benzene other than ENVA, with winds from the north-east resulting in the highest observed average benzene levels.

Nonetheless, odour complaints associated with the site indicate that the emission can result in odour nuisance, which is in breach of the licence conditions for the activity. The EPA's investigation file remains open in relation to the odour nuisance caused by site activities. Ongoing EPA activities and actions in relation to this site will include:

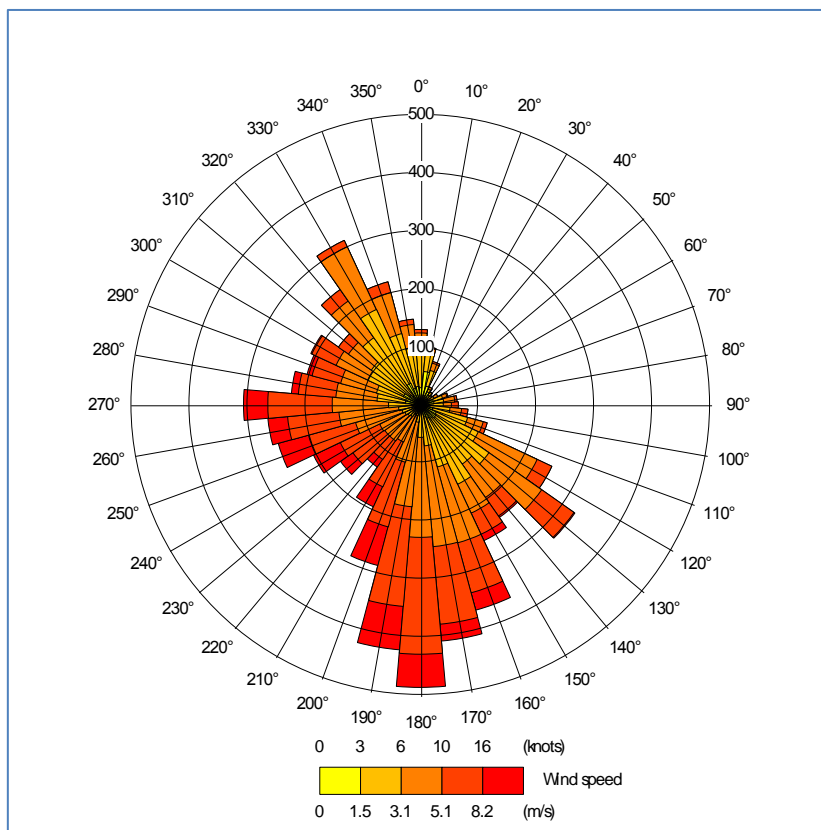
- Continued measurement of ambient BTEX levels adjacent to the site;
- Ongoing odour assessments and investigation of all odour complaints received;
- Review of the existing EPA licence for the ENVA site. A licence review has been initiated by the EPA. As part of this process, submissions can be made to the Agency by any stakeholders and all documents submitted as part of the licensing process are made available on the EPA website at:

<http://www.epa.ie/terminalfour/ippc/ippc-view.jsp?regno=W0184-02#.Vwz6UGz2bWO>

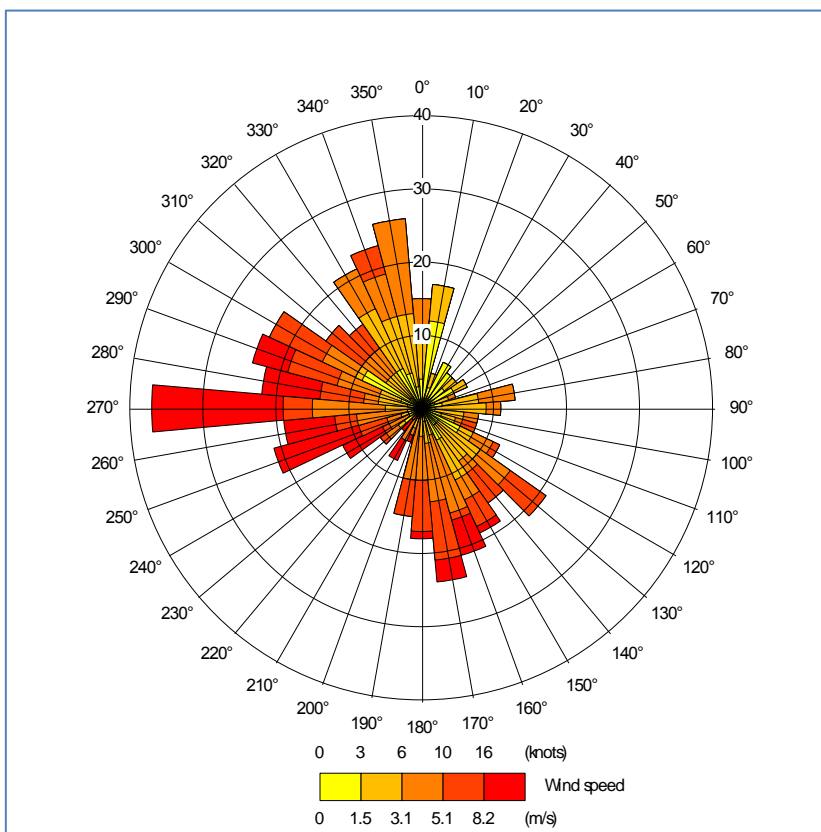
- Additional enforcement actions, including further legal action if necessary, to ensure that residents are not exposed to nuisance odours from the facility;
- Provision of further reports/updates on EPA activity in relation to the ENVA site will be made available on the EPA website.

Appendix 1 – Summary & Monthly Wind Roses

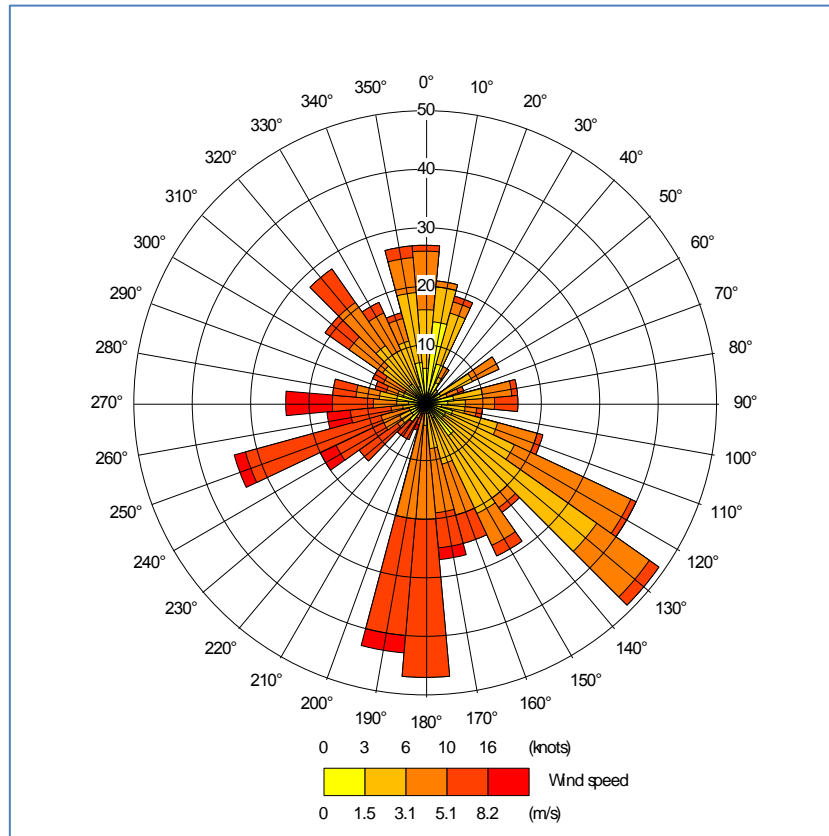
March to December 2015



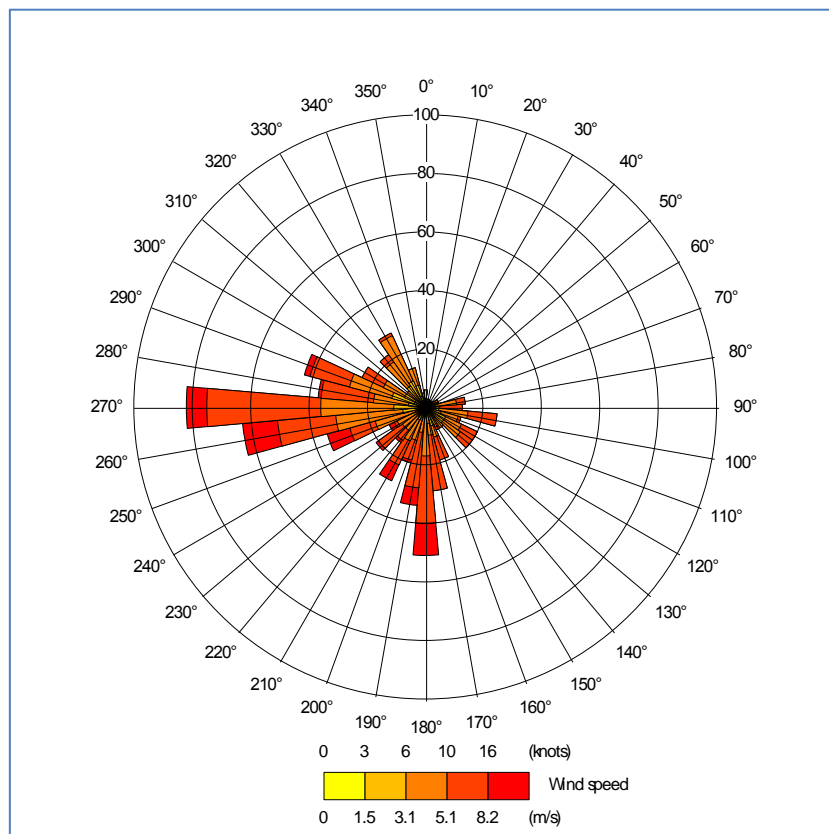
March 2015



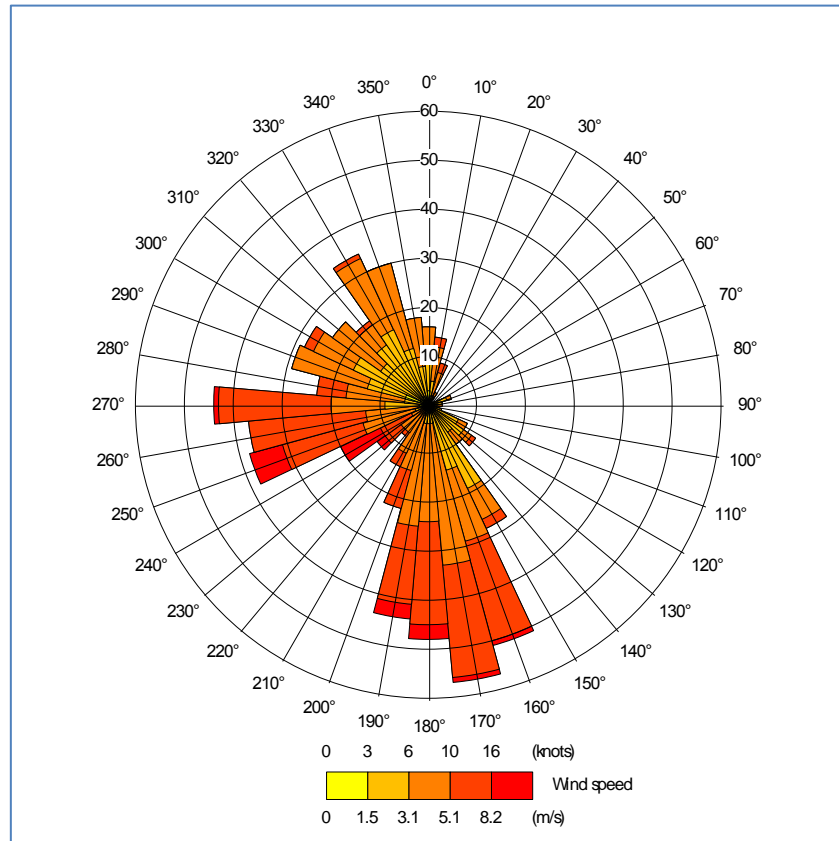
April 2015



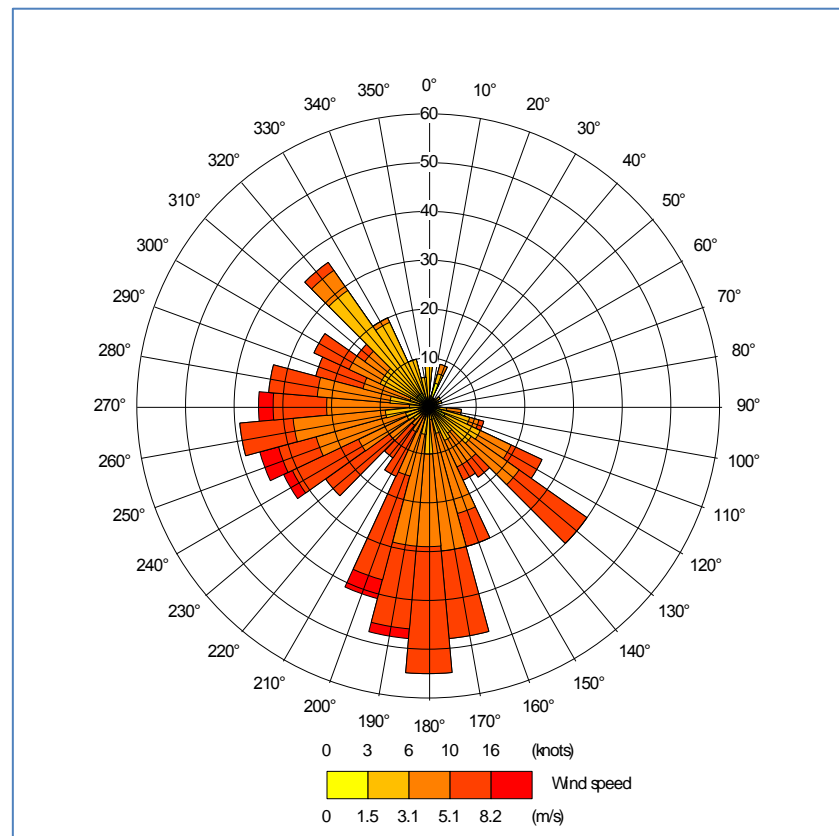
May 2015



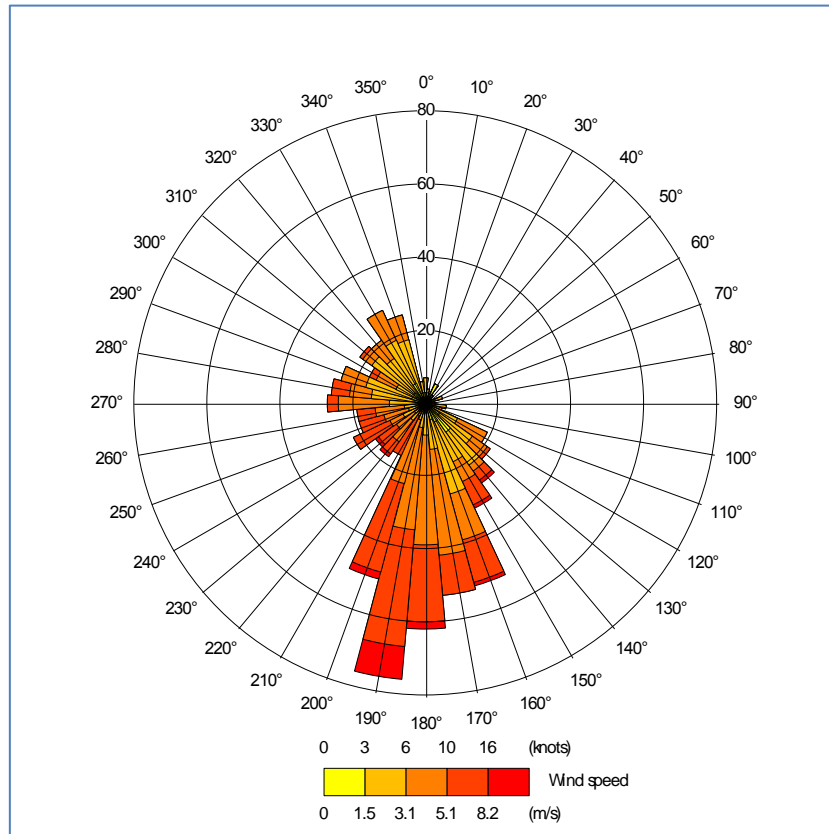
June 2015



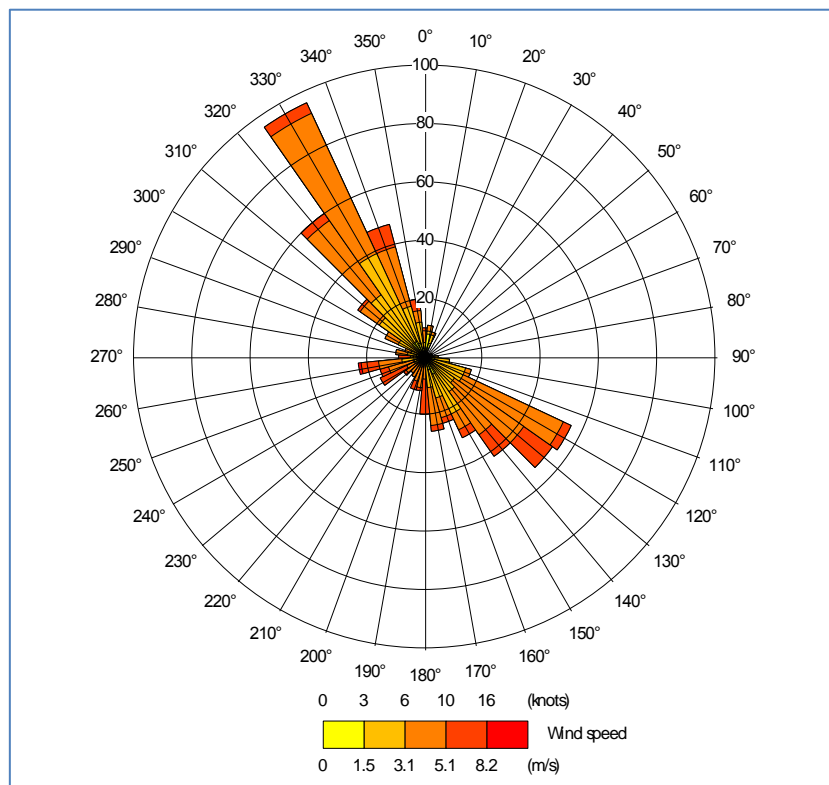
July 2015



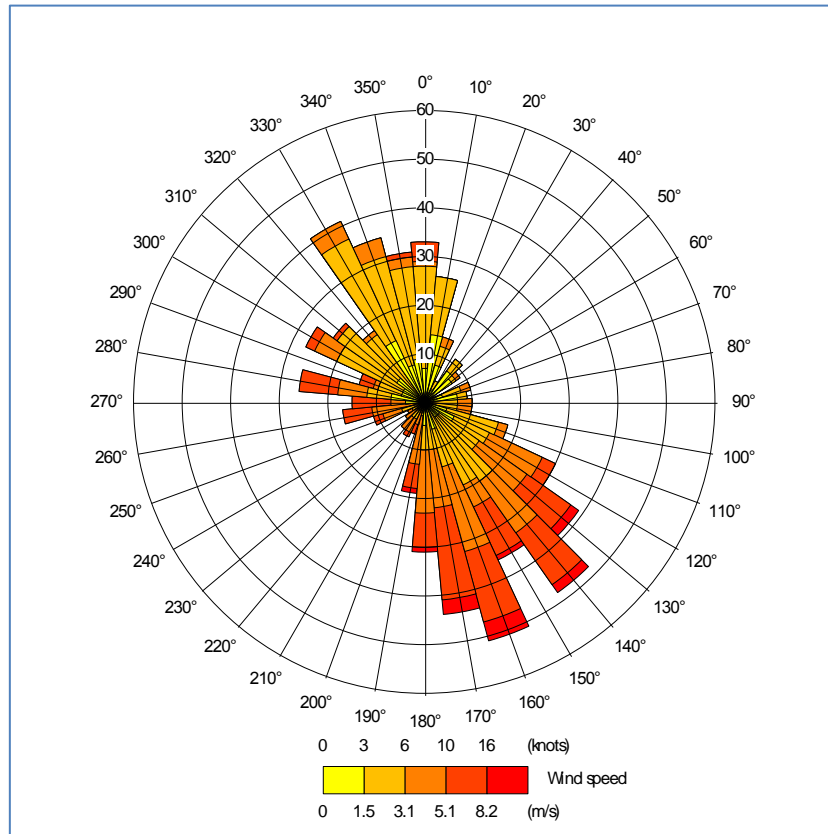
August 2015



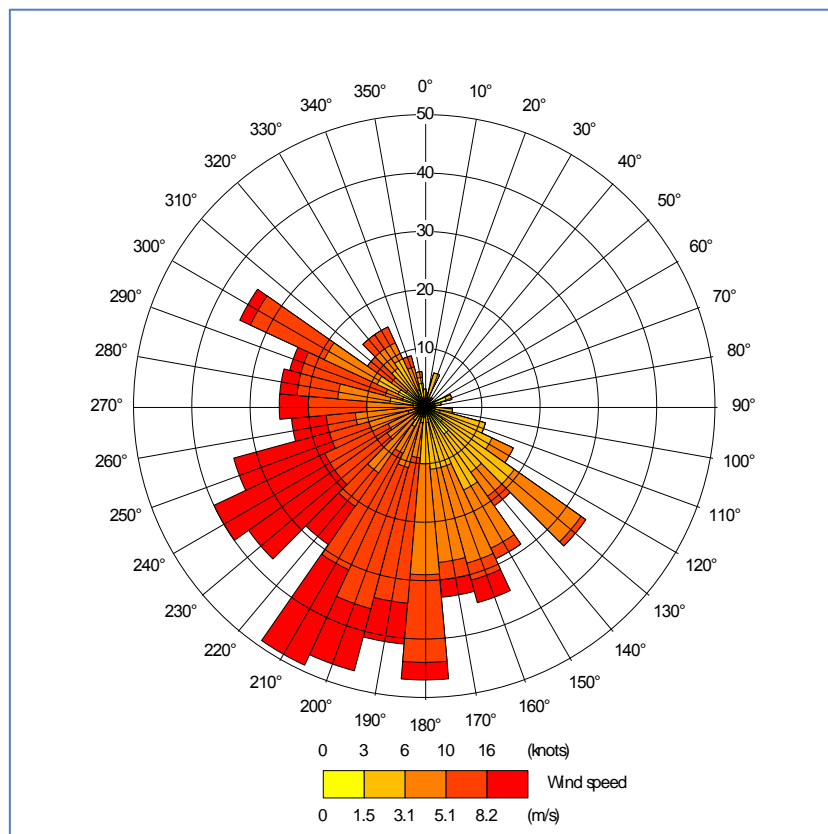
September 2015



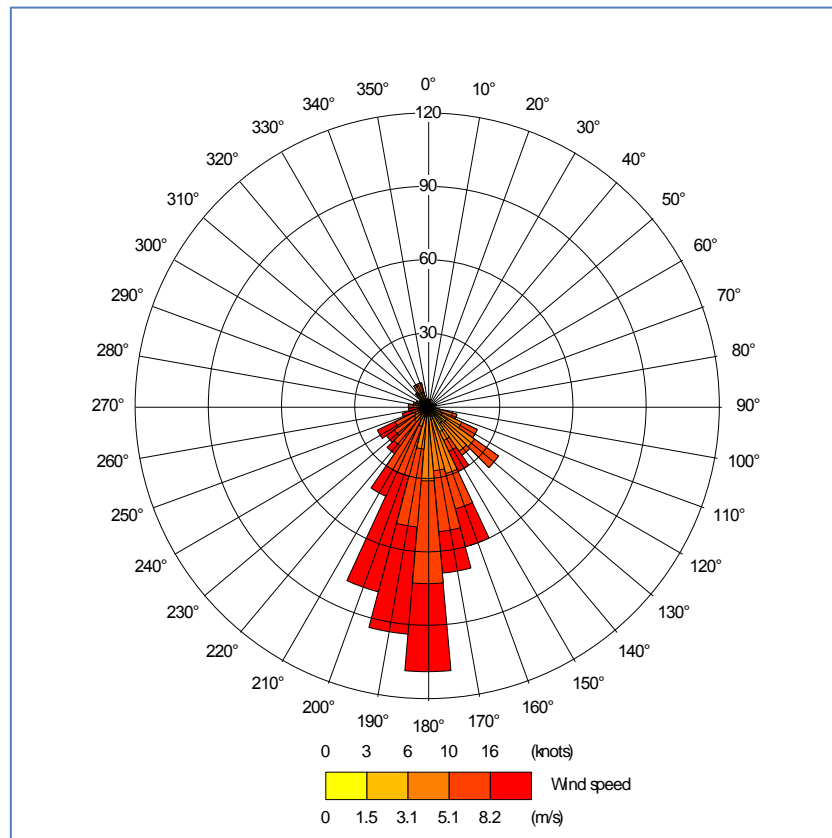
October 2015



November 2015



December 2015



AN GHNÍOMHAIREACHT UM CHAOMHNÚ COMHSHAOIL

Tá an Gníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaoil a chaomhnú agus a fheabhsú mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaoil a chosaint ó éifeachtaí díobhálacha na radaíochta agus an truaillithe.

Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

Rialú: Déanaimid córais éifeachtacha rialaithe agus comhlionta comhshaoil a chur i bhfeidhm chun torthaí maithe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcleonn leis na córais sin.

Eolas: Soláthraimid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spriocdhírthe agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.

Tacaíocht: Bimid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaoil atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaoil inbhuanaithe.

Ár bhFreagrachtaí

Ceadúnú

Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaoil:

- saoráidí dramhaíola (*m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistrithe dramhaíola*);
- gníomhaíochtaí tionsclaíocha ar scála mór (*m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta*);
- an diantalmhaíocht (*m.sh. muca, éanlaith*);
- úsáid shrianta agus scaoileadh rialaithe Orgánach Géimhódhnaith (*OGM*);
- foinsí radaíochta ianúcháin (*m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíocha*);
- áiseanna móra stórála peitрил;
- scardadh dramhuisce;
- gníomhaíochtaí dumpála ar farraige.

Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
- Obair le húdaráis áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhíríú ar chiontóirí, agus trí mhaoirsiú a dhéanamh ar leasúchán.
- Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (DTLL), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a idíonn an ciseal ózóin.
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaoil.

Bainistíocht Uisce

- Monatóireacht agus tuairisciú a dhéanamh ar cháilíocht aibhneacha, lochanna, uisce idirchriosacha agus cósta na hÉireann, agus screamhuisceí, leibhéil uisce agus sruthanna aibhneacha a thomhas.
- Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- Monatóireacht agus tuairisciú a dhéanamh ar Cháilíocht an Uisce Snámha.

Monatóireacht, Anailís agus Tuairisciú ar an gComhshaoil

- Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- Tuairisciú neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus na n-údarás áitiúil (*m.sh. tuairisciú tréimhsiúil ar staid Chomhshaoil na hÉireann agus Tuarascálacha ar Tháscairí*).

Rialú Astaíochtaí na nGás Ceaptha Teasa in Éirinn

- Fardail agus réamh-mheastacháin na hÉireann maidir le gáis cheaptha teasa a ullmhú.
- An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhair breis agus 100 de na táirgeoirí dé-ocsaide carbóin is mó in Éirinn.

Taighde agus Forbairt Comhshaoil

- Taighde comhshaoil a chistiú chun brúnna a shainathint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeráide, an uisce agus na hinbhuanaitheachta.

Measúnacht Straitéiseach Timpeallachta

- Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaoil in Éirinn (*m.sh. mórfhleananna forbartha*).

Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéil radaíochta, measúnacht a dhéanamh ar nochtadh mhuintir na hÉireann don radaíocht ianúcháin.
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha.
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta.
- Sainseirbhísí cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

Treoir, Faisnéis Inrochtana agus Oideachas

- Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- Faisnéis thráthúil ar an gcomhshaoil ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaoil (*m.sh. Timpeall an Tí, léarscáileanna radóin*).
- Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- Plean Náisiúnta Bainistíochta Dramhaíola Guaisí a fhorbairt chun dramhail ghuaiseach a chosc agus a bhainistiú.

Múscailt Feasachta agus Athrú Iompraíochta

- Feasacht comhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an ghníomhaíocht á bainistiú ag Bord lánaimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inmharthanacht Comhshaoil
- An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- An Oifig um Fianaise is Measúnú
- An Oifig um Cosaint Raideolaíoch
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltaí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair imní agus le comhairle a chur ar an mBord.



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