

Environmental Protection Agency
Biodiversity Action Plan 2014 - 2018
Our role in protecting Ireland's biodiversity



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 Radiation Protection and Environmental Monitoring
- 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.

ENVIRONMENTAL PROTECTION AGENCY

BIODIVERSITY ACTION PLAN 2014-2018

Our role in protecting Ireland's Biodiversity

Compiled by the
EPA Biodiversity Cross-Office Team

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

PO Box 3000
Johnstown Castle Estate
County Wexford
Ireland

Foreword

The EPA's over-riding priority in the EPA Strategic Plan 2013-2015, *Working with others for a better environment*, is to "keep the environment centre-stage and support sustainable economic recovery". One of the six environmental goals set forth in that plan is to have 'protected soil and biodiversity'. Sustainable economic performance and biodiversity are closely linked.

Natural capital, which refers to the elements of nature that produce value (directly and indirectly) to people, such as our stock of forests, rivers, land, minerals and oceans, underpins all other types of capital (man-made, human and social) and is the foundation on which our economy, society and prosperity is built. By combining different forms of capital, we are able to enjoy a huge variety of benefits. These benefits, frequently referred to as ecosystem services, include the provision of food, materials, clean water, clean air, climate regulation, flood prevention, pollination, soil formation and retention, nutrient and carbon cycling, flood risk mitigation, recreation and wellbeing. Since the flow of services from ecosystems requires that they function as whole systems, the structure and diversity of ecosystems are important components of natural capital. Biodiversity is an important consideration in this regard as it underpins many of our ecosystems and is vital to their resilience. Loss of biodiversity is an ongoing issue which can weaken an ecosystem, compromising the delivery of ecosystem services and making them more vulnerable to extreme environmental events.

Ireland is currently implementing its second National Biodiversity Plan which sets the following overarching target: "That biodiversity loss and degradation of ecosystems are reduced by 2016 and progress is made towards substantial recovery by 2020". The Agency participates in the national working group overseeing the implementation of that plan as well as producing this plan in support of it.

In implementing our core statutory functions, the EPA therefore seek to ensure that biodiversity is considered and protected in the performance of our duties. In addition, we will continue to promote the integration of biodiversity considerations in sectoral plans, programmes and policies through our interaction with key sectors such as agriculture, forestry, water, energy, land use and the research community.

The actions contained in this plan demonstrate that a wide range of significant actions will continue to be undertaken by the EPA, in association with key partners, with the overall objective of protecting Ireland's biodiversity. We will review our performance against the actions during the life time of the plan and will, where necessary, incorporate new actions to further the on-going protection of our natural capital.

Laura Burke

Director General

October 2014

CONTENTS

Contents

Foreword.....	3
CONTENTS.....	4
Acknowledgements.....	5
Summary	6
Introduction.....	7
Background.....	7
Biological Diversity	7
Biodiversity Status in Ireland.....	8
EPA Strategic Plan for 2013-2015.....	8
EPA Review.....	8
National Biodiversity Plan 2011-2016	9
EPA Biodiversity Cross-Office Team.....	10
The EPA Biodiversity Action Plan.....	10
MONITORING AND WATER QUALITY STATUS ASSESSMENT (M)	12
Monitoring (M1).....	13
Catchment Management Planning and Protection (M2)	16
Land Cover/Land Use/Soils (M3).....	17
RESEARCH (R)	21
EPA Research Programme (R1).....	22
Biodiversity Research Platform (R2).....	28
INFORMATICS, ASSESSMENT & REPORTING (I).....	30
National Focal Point to European Environment Agency (I1)	31
Geographic Information Systems (I2).....	32
Strategic Environmental Assessment (I3).....	33
State of the Environment Reporting (I4)	36
ENVIRONMENTAL REGULATION (E)	38
Environmental Licensing (E1)	39
Enforcement Activities (E2).....	41
Genetically Modified Organisms (E3).....	43
Resource and Chemicals Management (E4).....	45
Environmental Liability Directive (E5).....	46
CLIMATE CHANGE (CC).....	48
Climate Change (CC1).....	50
MANAGEMENT AND COMMUNICATIONS (C).....	54
Liaison with Stakeholders (C1).....	55
Communication and Education (C2).....	56
Operations and Facilities (C3).....	58
Biodiversity Cross Office Team (C4).....	59
Conclusion.....	63
Acronyms and Links	64

Acknowledgements

The plan was compiled by Eamonn Merriman, Wayne Trodd and Tadhg O'Mahony on behalf of the EPA Biodiversity Cross-Office Team. The authors would also like to thank the many EPA staff who contributed to the compilation of both planned and completed actions for their particular work areas. The assistance of Abigail Murphy and Linda Coyne with document preparation is also gratefully acknowledged.

Cover photographs were provided by the following:

- Tina Claffey (Glenbarrow waterfall)
- Tina Claffey (Four spotted chaser dragonfly, *Libellula quadrimaculata*)
- Patricia McCreesh (EPA staff monitoring lakes)

Photographs in the report were provided by the following:

- John Lucey (EPA Staff assessing river)
- EPA Research Programme
- EPA GIS Team (satellite image of Ireland)
- David Dodd (coastal erosion)
- John Doheny (EPA Water Conferences-Galway 2014)
- Brian Power (Grey Wagtail, *Motacilla cinerea*)

The following have participated in the EPA Cross Office Biodiversity Team (* current member):

- Brian Donlon
- Yvonne Doris
- Donal Grant*
- Brendan Foley
- Eamonn Merriman*
- Suzanne Monaghan
- Micheál Ó Cinnéide*
- Tadhg O'Mahony*
- Geraldine Ruane*
- Wayne Trodd*

Summary

The National Biodiversity Plan, *Actions for Biodiversity 2011-2016*, lists amongst its actions that Government Departments and relevant state agencies should produce a biodiversity action plan.

The EPA strategy, *2020 Vision – Protecting and Improving Ireland's Environment*, also committed the EPA to establishing a biodiversity team which would produce an action plan.

The Biodiversity Cross-Office Team was established in October 2007. It has produced this EPA Biodiversity Action Plan, which follows on from previous plans covering 2008-2010 and 2011-13. This plan covers a range of actions which together represent a substantial support role undertaken by the Agency in the protection of Ireland's biodiversity.

The advent of the Water Framework Directive has resulted in a greatly increased biological component in the monitoring of the aquatic environment. The EPA's activities in that regard will significantly increase the state of knowledge of aquatic biodiversity in Ireland.

Between 2007 and 2013, the Agency's STRIVE research programme funded 149 Research Projects (projects with a budget over €10,000) related to Sustainable Environment with a total commitment from the EPA of approximately €27m. As part of the EPA's current research programme for the period 2014-2020, projects to increase knowledge of biodiversity will continue to be funded in order to assist with meeting Irish commitments to halt and reverse biodiversity decline.

Funded jointly by the EPA and the National Parks and Wildlife Service (NPWS), the National Platform for Biodiversity Research has to date defined national biodiversity research needs, improved the exchange of information between the research community and policy makers, and linked with European initiatives through the European Platform for Biodiversity Research Strategy (EPBRS).

The EPA will continue to include an assessment of the status of Ireland's biodiversity as part of its State of the Environment reports, which are published every fourth year, and will work with the National Parks and Wildlife Service to report information pertaining to nature and biodiversity to the European Environment Agency.

In implementing its core functions relating to the licensing and regulation of various significant activities, the EPA will seek to ensure that biodiversity is protected.

The EPA has significant new responsibilities under the Environmental Liability Directive in relation to the liabilities of operators causing damage or risk of damage to protected species and habitats and the identification of appropriate remediation.

Overall, these actions together with the many others contained in this plan demonstrate that a wide range of significant actions will continue to be undertaken by the EPA in relation to the protection of biodiversity.

Introduction

Background

Action 1.1 of the National Biodiversity Plan (NBP), *Actions for Biodiversity 2011-2016*, requires that relevant Government Departments and State agencies should produce a biodiversity action plan (BAP) in line with the NBP to pursue and promote the conservation and sustainable use of biodiversity. The EPA strategy, *2020 Vision – Protecting and Improving Ireland's Environment*, also committed the EPA to establishing a biodiversity team which would produce an action plan.

This document is an update of the EPA's second (2011-2013) BAP and it also summarises completed actions to-date. This plan was prepared by the Agency's Cross-Office Biodiversity Team.

Biological Diversity

The United Nations Convention on Biological Diversity¹ defines 'biological diversity' as 'the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

For its relatively small size, Ireland has a wide diversity of habitats, including 16 priority habitats as designated under the EU Habitats Directive (92/43/EEC). Aquatic habitats are relatively well represented. These support internationally significant populations of threatened species such as the Atlantic salmon, white-clawed crayfish, freshwater pearl mussel, whorl snails and Roseate terns. Ireland is also particularly rich in bryophytes, lichens and algae. Aquatic habitats and species, however, feature strongly in the lists of those identified as being of poor conservation status. The significance of the aquatic ecosystems in this regard, along with the many human activities with potential to damage the ambient water environment, serves to underline the fact that in Ireland as elsewhere general environmental protection and biodiversity protection are inextricably linked.

The June 2012 United Nations Conference on Sustainable Development (Rio+20) produced an Outcome document² which contains clear and practical measures for implementing sustainable development. This is supported by the 7th EU Environment Action Programme³ (*Living Well, Within the Limits of Our Planet*). The EU has called for a halt to biodiversity loss, the degradation of ecosystem services in the EU and their restoration in so far as feasible by 2020. Implementing this EU decision will be extremely challenging for Ireland and will require new approaches and solutions.

¹ <http://www.cbd.int/>

² <http://sustainabledevelopment.un.org/index.php?menu=1298>

³ <http://ec.europa.eu/environment/newprg/index.htm>

Biodiversity Status in Ireland

The key message of the state of the environment report, *Ireland's Environment 2012*⁴ is that progress has been made in the designation of EU protected areas in Ireland; however, many areas of national importance remain to be designated and significant aspects of biodiversity in Ireland remain under considerable threat from unsustainable activities.

Based on the poor conservation status of many important habitats and some species, considerable efforts and resources will be required to improve their status, both within and outside protected areas.

It is also evident that there are specific challenges relating to biodiversity posed by climate change and that biodiversity can be somewhat of a 'poor relation' among environmental topics, highlighting the particular need for the mainstreaming of this subject.

Biodiversity protection is significant from each of these perspectives, and therefore it is one of the most important environmental challenges in Ireland.

EPA Strategic Plan for 2013-2015

In its most recent Strategic Plan (2013-2015) – *Working with others for a Better Environment*, the EPA reaffirmed the long-term vision for Ireland's environment set out in its last strategy, *2020 Vision: Protecting and Improving Ireland's Environment*. The strategy set out six environmental goals, reflecting the main challenges that were identified in the EPA State of the Environment reports. One of those goals is to have 'protected soil and biodiversity.' This was expressed in the following terms:

The soil of Ireland will be protected from contamination and loss and will support dependent plants and animals. Our biodiversity will be protected and managed for future generations to enjoy.

In addition, the strategy listed a series of actions necessary to achieve each goal as well as detailing how the EPA would contribute to their achievement. It is noted that although the EPA does not have the primary statutory responsibility in relation to managing and protecting Ireland's biodiversity (which rests with NPWS), it undertakes a range of activities that will contribute to achieving this goal. These activities include the following:

Promote the conservation of biodiversity by putting in place a biodiversity team in the EPA and by preparing an action plan to ensure that our activities do not adversely impact on biodiversity.

EPA Review

The Minister for the Environment, Heritage and Local Government, in February 2010, established a group to review the EPA's scope, mandate, structures and performance, having regard to the central role played by the Agency in monitoring, maintaining and improving

⁴ <http://www.epa.ie/irelandsenvironment/irelandsenvironment2012/>

Ireland's environmental performance. Their report, *A Review of the Environmental Protection Agency*⁵, was published in May 2011.

The review group recognised the need to better coordinate the remit for biodiversity monitoring of the EPA with that of the NPWS, the local authorities and DAFM. This is reflected in recommendation 7.3.13 of the review:

The EPA's role in biodiversity monitoring should be better co-ordinated with that of the NPWS.

National Biodiversity Plan 2011-2016

Ireland is currently implementing its second National Biodiversity Plan *Actions for Biodiversity 2011-2016*⁶. The measures Ireland will take are presented as 102 actions designed to achieve 21 targets under seven Strategic Objectives. It also sets headline targets as follows: In the wider countryside and marine environment, biodiversity loss should be reduced by 2016 and showing substantial recovery by 2020; and, loss of protected habitats and species should be halted by 2016.

The seven Strategic Objectives are:

1. To mainstream biodiversity in the decision making process across all sectors
2. To substantially strengthen the knowledge base for conservation, management and sustainable use of biodiversity
3. To increase awareness and appreciation of biodiversity and ecosystems services
4. To conserve and restore biodiversity and ecosystem services in the wider countryside
5. To conserve and restore biodiversity and ecosystem services in the marine environment
6. To expand and improve on the management of protected areas and legally protected species
7. To substantially strengthen the effectiveness of international governance for biodiversity and ecosystem services

Some of the actions within the NBP are continuing elements of pre-existing work and many are requirements under existing EU Directives. Many of these actions are relevant to the Agency and it reports on its actions regarding them to the Biodiversity Working Group which oversees the implementation of the NBP.

In all there are 29 actions with direct links to EPA work and responsibilities which the Agency must regularly report upon to the National Biodiversity Working Group. Of these specific actions the Agency is

- Sole Lead for one Action: 1.10 (*Fully implement the Environmental Liability Directive and issue appropriate Guidance*).
- Joint Lead for three Actions: 1.9 (*Fully Implement the SEA Directive*); 3.5 (*Establish and continue to promote common data standards and quality assurance procedures in line with the INSPIRE Directive and other data standards to enable interoperability of*

⁵ <http://www.environ.ie/en/Environment/EPAReview/>

⁶ <http://www.npws.ie/media/Biodiversity%20Plan%20text%20English.pdf>

key biodiversity databases and inventories by 2015); and, 6.1 (Ensure implementation of operational monitoring programmes, publication of River Basin Management Plans and establishment and implementation of River Basin District Programmes of Measures, in line with provisions of the Water Framework Directive).

- A named Key Partner for fourteen Actions in the EPA reporting grid (1.6, 1.12, 3.1, 3.4, 3.6, 3.10, 5.4, 6.2, 6.3, 12.1, 12.2, 13.2, 17.3 and 19.1) and four Actions in the Full reporting grid (3.3, 3.8, 6.3 and 17.4).
- Reports on seven other Actions.

It is notable that the EPA is listed as a “lead” or “key player” in 8 of the 13 actions listed under the knowledge target in the NBP.

EPA Biodiversity Cross-Office Team

The EPA strategy *2020 Vision – Protecting and Improving Ireland’s Environment* states that the EPA will maintain a biodiversity team and produce a BAP.

The EPA Biodiversity Cross-Office Team was first established in October 2007. It includes representatives from each of the Offices of the Agency. It meets at least twice per annum to review biodiversity issues as they relate to the Agency. The team assists with the various biodiversity related activities undertaken across the various Offices. It prepares the Agency’s BAP. It participates, on behalf of the Agency, in the national Biodiversity Working Group which aims to advance the implementation of the NBP. It reports on Agency actions undertaken to deliver targets specified in the NBP. It contributes to the prioritisation of EPA Research Programme projects in this area.

The EPA Biodiversity Action Plan

This document sets out the EPA’s action plan for the implementation of its role in the protection of biodiversity for the period 2014 to 2018. It succeeds the previous BAP which covered the period 2011-2013. It was prepared by a sub-group of the EPA Cross Office Biodiversity Team with input from various other EPA staff members. The actions are grouped under the following headings:

- *Monitoring and Water Quality Status Assessment*
- *Research*
- *Informatics, Assessment & Reporting*
- *Environmental Regulation*
- *Climate Change*
- *Management & Communications*

Each action is assigned a unique 3 or 4-level alphanumeric number. For example as follows:
M1-6a

Level 1 = Heading Letter: **M1-6a : M = Monitoring and Water Quality Status Assessment**

Level 2 = Sub-Heading Number **M1-6a : 1 = Monitoring**

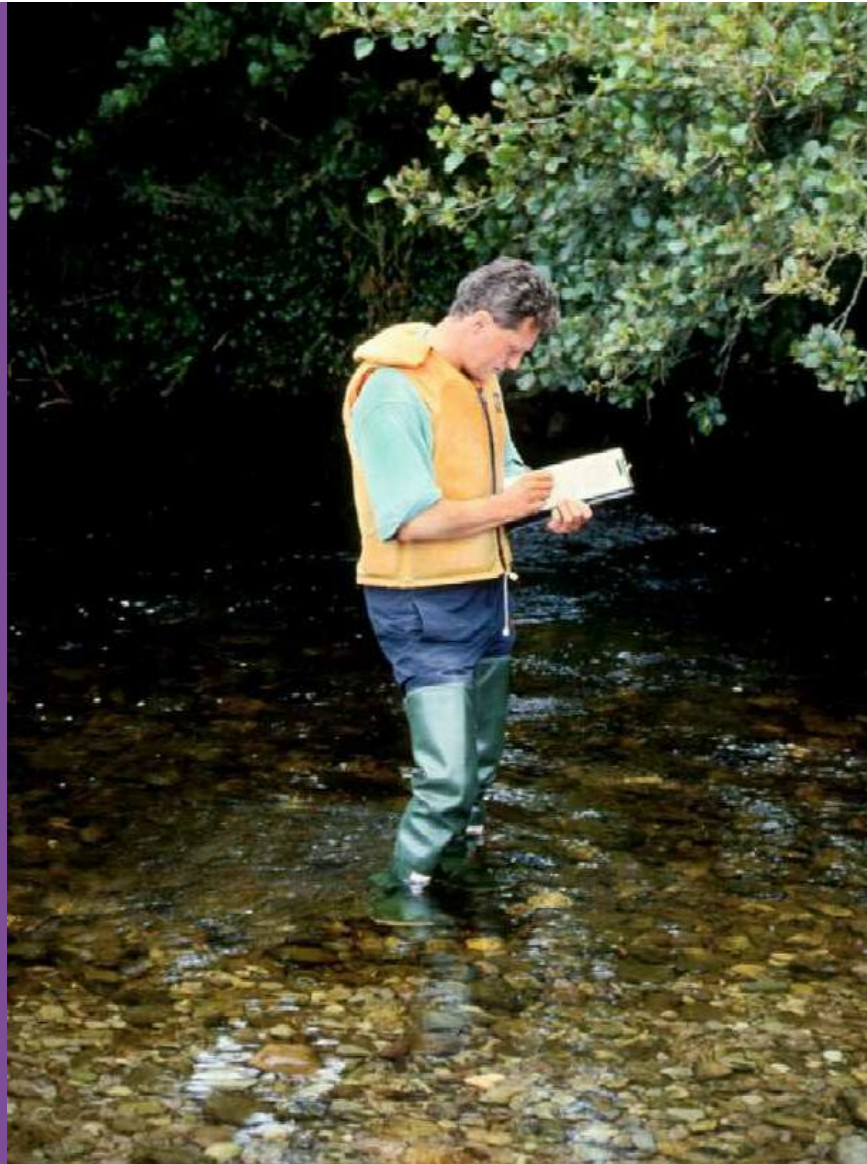
Level 3 = Activity number:

M1-6a : **6** = Groundwater Monitoring Programme

Level 4 = Action number

M1-6a : **a** = Continue to provide groundwater quality data to support the assessment on impacts on associated surface waters and terrestrial ecosystems.

MONITORING AND WATER QUALITY STATUS ASSESSMENT (M)



Monitoring (M1)

Office: OEA

In line with Ireland's obligations under the Water Framework Directive and the Marine Strategy Framework Directive, the Agency undertakes a wide range of monitoring activities that are of particular relevance to biodiversity, particularly in the aquatic habitats of rivers, lakes, groundwaters, transitional and coastal waters. Work with our partners in this area contributes to the recording and protection of our biodiversity. There is also recognition of the need for research in how climate change affects our aquatic habitats.

Activity			Actions	Partners	Timescale
			Monitoring Rivers and Lakes		
M1-1	River, Lake and Transitional and Coastal Water biological surveys	a	Continue to assess surface water quality using the resident biological communities (flora and fauna). Use the data to map the distribution of aquatic flora and fauna in Ireland.	NPWS, NIEA, IFI, NBDC	Ongoing
		b	Provide records, from surveys, of the two protected riverine invertebrate species (freshwater pearl mussel and crayfish) to the NPWS.		
		c	Report on high status (Q5 and Q4-5) riverine sites.		
		d	Regularly monitor the macroinvertebrate communities of lakes and inflowing rivers as part of the national monitoring programme for acid waters.		
M1-2	Cataloguing Alien species	a	Provide records, from river and lake surveys, of alien species to NBDC, IFI and other relevant bodies.	NBDC, IFI, NPWS, OPW	Ongoing
M1-3	River Flow and Lake Level Data	a	Provide river flow statistics and lake level data to support decisions relating to environmental impact and the establishment of discharge limits for licensed activities.		Ongoing

			Monitoring Transitional and Coastal Waters		
M1-4	Develop targets for MSFD	a	Continue to work with our partners to develop targets based on seagrass, saltmarsh, rocky shore macroalgae and benthic invertebrates, for the biodiversity component of the Marine Strategy Framework Directive.	MI	Ongoing
M1-5	Develop tools for WFD	a	Complete the STRIVE research project to develop a draft tool for the assessment of saltmarshes (SMAATIE; research project 2013-W-DS-10 Saltmarsh Angiosperm Assessment Tool Ireland) and field test the draft tool.	NIEA	2013-2016
			Monitoring Groundwaters		
M1-6	Groundwater Monitoring Programme	a	Continue to provide groundwater quality data to support the assessment of impacts on associated surface waters and terrestrial ecosystems.	NPWS, Third Level Institutions	Ongoing
		b	Continue to monitor groundwater flow from a number of springs to assist in the calculation of nutrient loading to surface water.		
		c	Assist in the assessment of Groundwater Dependent Terrestrial Ecosystems and undertake the groundwater quality, level and flow monitoring for the Groundwater Body that supports the Groundwater Dependent Terrestrial Ecosystem identified as being at Poor WFD Status during the 1 st WFD cycle.	NPWS	
		d	Assist in Climate Change studies by monitoring groundwater levels at sites.	NPWS	

Examples of Key Completed Actions – M1

Provided records from the following nationwide biological surveys to the National Biodiversity Data Centre:

- Riverine flora and fauna
- Lake littoral macroinvertebrate fauna
- Lake flora
- Quantitative lake phytoplankton data
- Rocky shore marine macroalgae

Provided records of observations of aquatic bird species encountered during river and lake survey work to BirdWatch Ireland when they were compiling the Bird Atlas 2007-2011 (launched in March 2014).

Initiated an assessment programme to assess the ecological condition of a number of “at risk” groundwater dependent wetlands following on from the recommendations in the 2013 research project *Evaluating the Influence of Groundwater Pressures on Groundwater-Dependent Wetlands* (<http://www.epa.ie/pubs/reports/research/water/strivereport100.html>)

Provided support to the *Tellus Border Wetlands* research project during 2012-2013 and the Scottish and Northern Ireland Forum for Environmental Research (SNIFFER) research project on the development of *Wetland regulatory standards for Scottish habitats and UK-wide upland habitats* during 2013.

Organised and hosted an EU special session on Groundwater-Dependent Wetlands in 2013 during the Irish Presidency as part of the WFD implementation programme

Contributed to the drafting of an EU technical report in 2013 on *Groundwater Dependent Terrestrial Ecosystems. Informal assessment of current state* as part of the WFD implementation programme

Herbarium Collection: Collected and preserved aquatic macrophyte specimens from Ireland’s lakes for addition to the herbarium collection of the National Botanic Gardens.

Catchment Management Planning and Protection (M2)

Office: OEA & OEE

The Water Framework Directive (WFD) is aimed at protecting our aquatic environments. All member states must achieve 'good' water quality by 2015 and prevent further deterioration of impacted areas. Ireland has been divided into a number of River Basin Districts (RBDs) and each RBD has a plan through which the WFD is implemented. Aquatic habitats and biodiversity are protected by these plans through programmes of measures.

	Activity		Actions	Partners	Timescale
M2-1	Ensuring the protection of biodiversity in the aquatic environment through undertaking the EPA functions for the Water Framework Directive	a	Undertake WFD Monitoring Programmes as follows (see monitoring section): <ul style="list-style-type: none"> Rivers, including diatoms, macrophytes, macroinvertebrates; Lakes, including diatoms, macrophytes, macroinvertebrates and phytoplankton; and Estuarine and coastal waters – specifically macro-algae, macrophytes and phytoplankton Note: Complemented by monitoring of other biological quality elements by Inland Fisheries Ireland and the Marine Institute.	IFI, MI, Local Authorities, River Basin Distr Co-ordinators, NPWS, DECLG, NIEA	Ongoing
		b	Assess and report on the quality status of all surface water categories by applying biological classification systems and standards to the results of the monitoring programmes.		
		c	Maintain and update the WFD Register of Protected Areas as required, including areas that are protected for nature conservation.		
		d	Prioritise the monitoring and protection of the remaining high quality sites and the restoration to good or high status of degraded sites through the implementation of River Basin Management Plans (see Enforcement Activities).		

Land Cover/Land Use/Soils (M3)

Office: OEA

The EPA recognises the importance of having access to accurate information on land cover. The rate and nature of land use changes indicate where future environmental pressures are likely to arise. There is a scarcity of high-resolution data on land use and land cover at national level in Ireland. The EPA supports the production of high resolution data. Soil provides the foundation for life in terrestrial ecosystems and is a repository of biodiversity. Our knowledge and understanding of soil quality and functions is limited.

	Activity		Actions	Partners	Timescale
M3-1	Monitoring Ireland's Land Cover and Land Use	a	Continue to participate in the Europe-wide programmes for the updating of the Corine Land Cover maps, which include important land cover classes for biodiversity, such as wetlands, forest and woodland, water, moors, heathland and natural grassland and intertidal flats.	EEA, EU Member States	Ongoing
		b	Continue to utilise the land cover inventory to extract information of relevance to understanding the status and trends in those key land cover classes of importance for biodiversity. An example was Indicator 41 Ecological Network and Spatial Planning in the EPA report <i>Environment in Focus 2002</i> .	NPWS, HC	Ongoing
		c	Continue to contribute to a national programme of land cover mapping, as set out in the NBP 2011-16.	HC, NPWS, NBDC, OSI, Teagasc	2011-2016
		d	Complete the following STRIVE research projects which aim to define a valid landcover classification system and associated remote sensing detection techniques for use in any future national landcover mapping programme: <ul style="list-style-type: none"> • The Irish Land Mapping Observatory (ILMO)- Mapping and Monitoring Land Cover, Use and Change: due to be finished in 2014 (UCC) • National Forest Inventory Support - Developing Methods to Track Forestry Related Land Use Change (UCC 2011-2014) • Identification of grassland management and land-use change using high resolution spatial databases (TCD 2012-2014) 	UCC, Teagasc	2014 - 2016

			<ul style="list-style-type: none"> 2013-SL-MS-1 TaLAM - Toward Landcover Accounting and Monitoring (UCC/Teagasc 2014-2016) 		
M3-2	Soil Protection: aspects relating to biodiversity	a	Improve the monitoring and mapping of soils, quantify and prioritise threats and develop a national framework for their management.	UCC, Teagasc	Ongoing
		b	Continue to monitor the impact of soil erosion on aquatic macro-invertebrates and other biological elements, particularly in the case of water bodies of high status.	Teagasc, NPWS, HC, NBDC	Ongoing
		c	Continue to include consideration of soil biodiversity in soil-related research projects. Information on these projects can be found at: http://www.epa.ie/research	RBD's, Local Authorities	2014-2016
		d	Soil Status & Protection Project The objectives of this desk study are to review the current EU and Irish legislations, policies and available data which assess or encompass soil protection issues for Ireland. In addition a review of existing data from soil based projects funded to date in Ireland will be completed and this will identify any gaps in knowledge or data. From the assessment of soil based projects, this project will develop a meta-catalogue of existing soil data in Ireland and proposed potential soil monitoring options for future research	NPWS, Teagasc	2014
M3-3	Complete current STRIVE research projects	a	New research investigating opinions for high resolution remote sensing of land cover on a landscape scale has been funded through the Climate Change Research Programme. This includes a study of the LIDAR for the estimation of biomass in the rural landscape and satellite remote sensing for detection of land cover and management through monitoring phonological signals such as vegetative indices.	CMRC, UCC, FERs Ltd.	2014-2016

		b	<p>Irish Soil Information System (ISIS) research project: The aim of this project is to develop both a 1:250,000 soil map for Ireland and an associated Soil Information System. A representative profile description database will be created for the 56% of Ireland that was never previously surveyed beyond general reconnaissance level. Other Outputs will be</p> <ul style="list-style-type: none"> • Contributions to developments internationally in soils research. • Advancement of national capacity in the soils thematic area. • Creation of a common framework for the provision of soil data in order to maximise the stakeholder benefit to be derived from this data. 	Teagasc	2007-2014
--	--	---	--	---------	-----------

Examples of Key Completed Actions – M3

The National Soil Database (NSDB) project

This project, funded by the ERTDI/STRIVE research programmes and Teagasc, produced, for the first time, a national baseline database of soil geochemistry and spatial distribution maps of major nutrients, major elements, essential trace elements, and trace elements of special interest and minor elements. In addition, this study has generated a National Soil Archive, comprising of both dried soil samples and nucleic acids (DNA) archive. The National Soil Archive represents a considerable research resource in the area of biodiversity. The NSDB generated baseline soil geochemical maps for Ireland. This study also applied large-scale microbiological analysis of soils for the first time in Ireland and in doing so also investigated microbial community structure in a range of soil types. A number of key outcomes relating to the NSDB are worth mentioning:

- Geographical coherence of the geochemical results and a strong relationship with the underlying geology; and
- Evidence of land-use, anthropogenic and climatic effects;
- A strong relationship between parent material and microbial data.

Soil Hydrology Project - Interactions of soil hydrology, land use and climate change and their impact on soil quality (report being published 2014)

This project finds that the threats (erosion, loss of organic matter, compaction, surface sealing and landslides) to Irish soils under current land use, management and climate conditions are low by international comparisons. This suggests that Irish soil quality is sustainable as currently managed. However, there are potential risks to sustainability of soil quality associated with intensification of food production in Ireland. In this context, there is an immediate need for comprehensive research concerning the impact on soil quality of the recommendations of Food Harvest 2020.

Research Consultation

There was an extensive consultation process in 2013 including participatory workshop, where research needs were explored ([View more information](#)). As part of the 2014-2020 EPA Research Programme, research projects will be funded primarily under the “Natural Capital and Ecosystem Services including Soils and Biodiversity” theme of the Sustainability Pillar.

RESEARCH (R)



EPA Research Programme (R1)

Office: OCLRR

The EPA Research Programme (2014-2020) will aim at maintaining a vibrant and relevant environmental research programme to influence policy, identify pressures and develop solutions to environmental challenges. The Research Programme will be focused on addressing the major environmental challenges of Climate, Water and Sustainability. Biodiversity Research will be funded primarily through the Sustainability Research Pillar.

Identify Pressures -Informing Policy – Developing Solutions

Climate

*Carbon Stocks, GHG Emissions, Sinks and Management
Ireland's Future Climate, its Impacts, and Adaptation Options
Climate Solutions, Transition Management and Opportunities
Air Science
Observation Systems, Big Data and System Models*

Water

*Safe Water
Ecosystem Services and Sustainability
Innovative Water Technologies
Understanding, Managing and Conserving our Water Resources
Emerging and Cross-cutting Issues*

Sustainability

*Resource Efficiency
Health & Wellbeing
Natural Capital and Ecosystem Services including Soils and Biodiversity
Socio-Economic Aspects of a Sustainable Environment*

	Activity		Actions	Partners	Timescale
R1-1	Commission research relevant to biodiversity	a	Issue calls for research in the following three areas under the <i>Natural Capital and Ecosystem Services including Soils and Biodiversity</i> research theme under the Sustainability pillar of the EPA Research Programme 2014-2020.	3 rd Level Institutes, NGO's, Consultants	Annually

			<ul style="list-style-type: none"> ➤ Evaluation/Assessment of our Natural Capital: This research covers the evaluation and assessment of pressures on natural capital, including biodiversity. ➤ Managing, Protecting & Restoring our Natural Capital: This research area aims at putting environment in the centre of decision making; working towards the importance of the environment being recognised; implementing environment legislation; and, supporting sustainable development. ➤ Governance & Behavioural Changes: This research area aims at mobilising society to behave in an environmentally responsible way. 		
		b	Consult with the key partners, including the NPWS, when formulating the research calls.	NPWS, DECLG, DAFM, NESC	Prior to calls
R1-2	Complete commenced biodiversity research projects	a	2012-B-SS-2 Wind Turbines and Water Birds: Displacement or Habituation? This study is designed to investigate if there is any evidence to support the widely held view that water birds (swans, geese, ducks, waders, gulls and others) are displaced from the area around operating wind turbines.	UCC, BWI	
		b	2012-B-PhD-10 Enhancing biodiversity potential of urban parks through improved management and public engagement In this project, it is proposed to take an integrated view from the development of a conceptual framework for management, through to the drafting of guidelines and the assessment of the implementation of such guidelines. Stakeholders and park users will be involved at every stage of the project. Project outcomes will be directly fed back to National Parks Professional network as well as to park users.	UCD	
		c	2012-B-DS-5 Integrating ecosystem approaches, green infrastructure and spatial planning (ECO-Plan) The ecosystem approach (EA) and green infrastructure (GI) have emerged as key concepts for sustainable environmental management. This project aims to provide a baseline study of current national practice	UCD	2013-2014

			in relation to EA, GI and spatial planning; to develop a cross-sectoral and stakeholder-based approach to identify pathways towards integrating EA/GI into spatial planning frameworks; and to develop recommendations and guidelines for the effective integration of EA/GI and spatial planning.		
		d	2013-B-FS-4 National Environmental Sensitivity Mapping Tool The research aim is to deliver an easy-to-understand and easy-to-apply robust method for the systematic and participative identification of environmental vulnerability areas that will, in turn, support the assessment of (cumulative) impacts associated with development proposals (plans and programmes in particular) across a variety of sectors. It is anticipated that this will contribute to addressing current deficiencies in environmental assessment as well as to better planning.	MU	2014-2016
R1-3	Support Workshops, Events and Small Scale Studies Related to Biodiversity	a	The EPA Research Programme will maintain a system for applying, assessing and awarding successful applications for grants for workshops, events and small scale studies.		Ongoing

Examples of Key Completed Actions – R1

Between 2007 and 2013, the Agency's previous research programme, STRIVE, funded 149 Research Projects (projects with a budget over €10,000) related to Sustainable Environment⁷ with a total commitment from the EPA of approximately €27m. The range of projects funded included desk-studies, scholarships, fellowships and large-scale multi-annual and multi-partner awards. Small Scale Studies and events were also funded.

2000-LS-3.1-M2 Biodiversity in Irish Plantation Forests <http://www.epa.ie/Bioforest> (PI: Dr. Susan Iremonger, Trinity College Dublin)

The outputs from this research project are an essential contribution towards Ireland meeting its obligations under the Convention on Biological Diversity and have been used in the development of FEPS – the forest environment protection scheme.

2001-CD.B1-M1 Ag Biota. <http://www.epa.ie/Agbiota> (PI: Dr. Gordon Purvis, UCD)

This very successful project studied the impact of agricultural practice on biodiversity within the Irish landscape and encouraged the development of a more bio-diverse agriculture by identifying and promoting farming practices that improve the environment.

2004-CD-P1-M2 BOGLAND: Sustainable Management of Peatlands in Ireland <http://www.epa.ie/Bogland> (PI: Dr Florence Renor-Wilson *et al.*, 2011).

The report clearly identified the vital role that peatlands play in key areas such as climate change and biodiversity. It concluded by recognising the need for increased protection of this valuable resource and made recommendations for the development of a national peatland strategy. The BOGLAND project developed a protocol for the sustainable management of peatlands in Ireland. Recommendations from this project have already been incorporated into the new birds and habitats regulations and helped to inform development of national peatland and wetland strategies.

2005-CD-B2-M1 Biochange. Biodiversity and environmental change: an integrated study encompassing a range of scales, taxa and habitats (PI: Prof. Stephen Waldren, TCD)

This very successful project, involving researchers from eight institutions, provided an integrative multi-disciplinary research framework for national and local biodiversity policy in Ireland.

2005-W-MS-39 IMPLANT. The Impact of Plant Nutrients on Primary Productivity in Running Waters: Evaluating the Risk to Stream Ecological Status <http://www.epa.ie/IMPLANT> (PI: Dr. Michael Stuart, UCC)

This successful project studied the relationships between plant nutrients, primary producers and their invertebrate consumers in running waters and identified the main factors that affect this relationship.

⁷ More information can be found at: <http://www.epa.ie/pubs/reports/research/>

<p>2005-S-LS-8 CRÉBEO(Irish for living soil) http://www.ucd.ie/crebeo (PI: Dr. Olaf Schmidt, UCD)</p> <p>The primary objective of this project was to increase scientific knowledge of soil biodiversity in Ireland. This lead to improved research capability and development of sustainable soil protection strategies.</p>
<p>2007-B-DS-1-S1 Evaluating the ecological impacts of cultivating genetically modified herbicide tolerant (GMHT) oilseed rape and maize http://www.epa.ie/GMHT Oilseed rape and Maize (PI: Dr Ewen Mullins, Teagasc, 2010)</p> <p>The research reported here is an extensive analysis of the scientific literature on the subject and was carried out between August 2009 and July 2010. There are several key conclusions from this analysis.</p>
<p>2007-B-DS-2-S1 Bird Atlas 2007-2011 The breeding and wintering birds of Britain and Ireland (PI: Brian Caffrey, BirdWatch Ireland, 2013)</p> <p>As well as updating status on distribution and abundance of bird species, trends were examined. The EPA was a co-founder of this project.</p>
<p>2007-B-CD-1-S1 Sectoral Impacts on Biodiversity and ecoSYStem services (SIMBIOSYS) (PI: Dr Jane Stout, TCD, 2013)</p> <p>This project quantified impacts of key sectoral activities (in particular: cultivation of bioenergy crops, road landscaping and aquaculture) on genetic, species and landscape biodiversity and the ecosystem services they provide.</p>
<p>2009-B-DS-3-S1 Tracking Invasive Species in Ireland http://www.epa.ie/Invasive Species (PI: Collette O'Flynn) Development of the National Invasive Species Database.</p>
<p>2011-B-DS-1 A GIS-supported Integrated Biodiversity Assessment Methodology (PI: Tamara Hochstrasser, UCD).</p> <p>The main objective of this desk study was to provide a mechanism for an integrated co-ordinated approach for Biodiversity Impact Assessment/Ecological Impact Assessment.</p>
<p>2011-B-MS-1 National Framework on Invasive Species Data Management (PI: Beatrice Kelly, National Biodiversity Data Centre)</p> <p>An effective strategy to deal with the problem of invasive species requires the provision of information on the current and potential spread of the key invasive species, a coordinated national network for the dissemination of that information, and the establishment of an early warning system to alert for new arrivals.</p>
<p>STRIVE 120 - Assessment and Monitoring of Ocean Noise in Irish Waters (PI: Dr Joanne O'Brien)</p>

Sources of anthropogenic (man-made) ocean noise include noise emitted from activities such as shipping, seismic surveying, geophysical surveying, construction, oil drilling and production, dredging, sonar systems, acoustic deterrents and most recently from the construction and operation of renewable energy platforms. Anthropogenic ocean noise can elicit a range of physical, physiological and behavioural effects on marine animals.

Workshops, Events and Small Scale Studies: Various small events have also been funded such as the 2012 European Cetacean Society Annual Conference and the first Natural Capital Forum in 2014. Grants have been awarded to enable researchers attend relevant conferences.

Note that other relevant research reports are also listed elsewhere in this BAP. For a full list of reports published, please refer to <http://www.epa.ie/research>

Biodiversity Research Platform (R2)

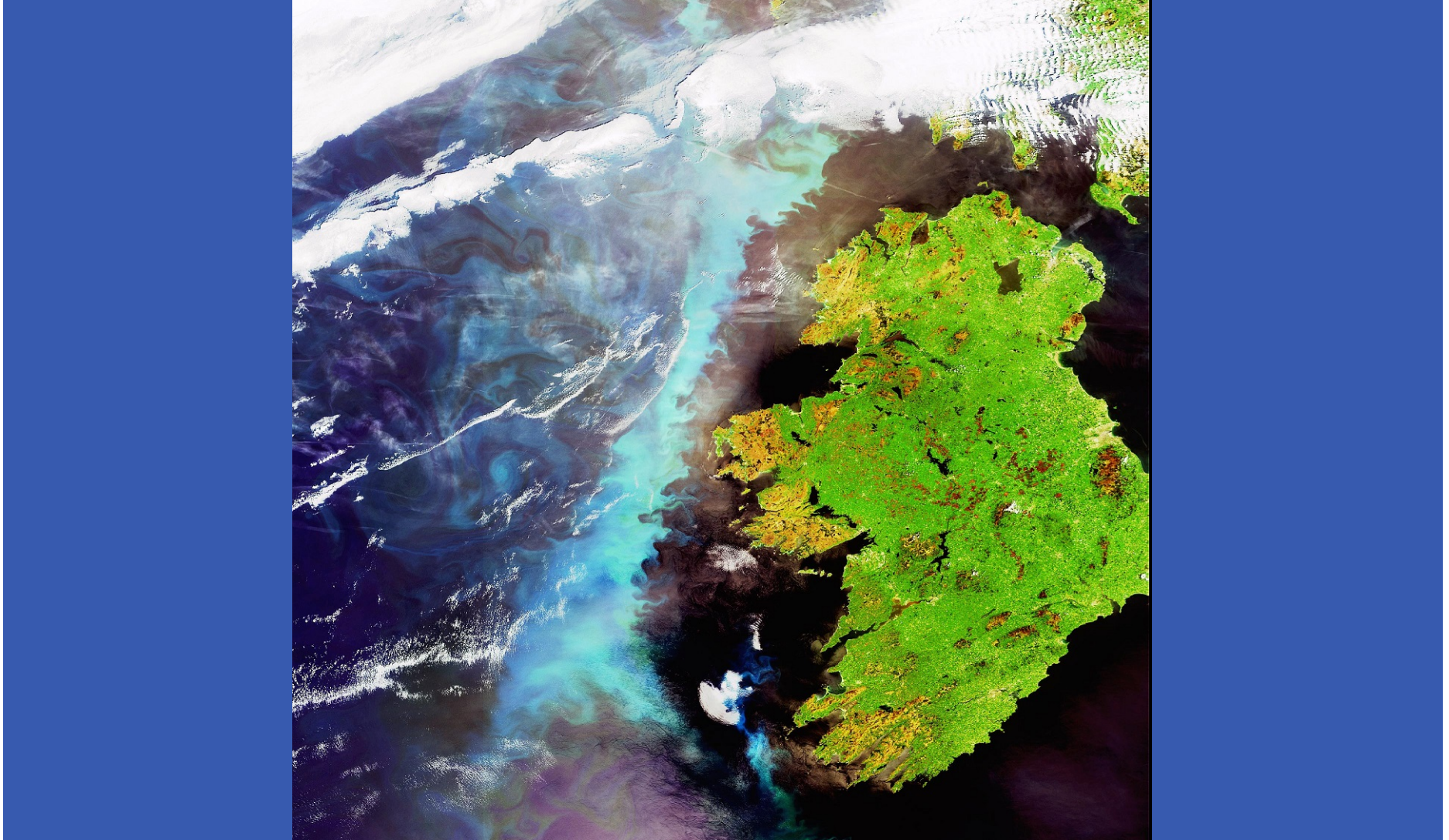
Office: OCLRR

The National Platform for Biodiversity Research (NPBR) was set up under contract to the National Parks and Wildlife Service and the Environmental Protection Agency in order to facilitate biodiversity research in Ireland, taking into account the needs of the research community, stakeholders, policy makers and the public. The aims of the NPBR include defining national biodiversity research needs, improving the exchange of information between the research community and policy makers, and linking with European initiatives through the European Platform for Biodiversity Research Strategy (EPBRS). The current contract runs from January 2013 to January 2015.

	Activity	Actions	Partners	Timescale
R2-1	Oversee NPBR contract	a Liaise with the NPWS, who are the contract lead, as required and participate in the Steering Group.	NPWS	2013-2015
		b Investigate mechanism to continue similar work and to maintain the already established knowledge depository beyond current contract end		2014-2015
R2-2	NPBR activities	a Maintain and update the NPBR website which was created during a previous contract	NPWS	2013-2015
		b Encourage further input from the research community and facilitate further outreach of recommendations made in the Secretariat's report of 2012.		
		c Update the NPBR database of biodiversity research in Ireland. This list should include projects funded; funding organisation and link to the final output from completed projects		
		d Hold one outreach meeting on IPBES process in 2013 to encourage input from Irish biodiversity research community to that process and write report on outcomes for website		
		e Prepare a final report on all activities of the Secretariat including options for the continuation of the NPBR after the contract has been completed		

	e	Represent Ireland at EPBR meetings during the contract		
	f	Any other tasks identified by the Steering Group		
		➤ Review the status of actions recommended by the STRIVE Boglands Report 2011		2014

INFORMATICS, ASSESSMENT & REPORTING (I)



National Focal Point to European Environment Agency (I1)

Office: OEA

Ireland plays an active role in the European Environment Agency network. The EEA operates under Council Regulation No. 1210/90 and subsequent amending Regulations. A key part of its mission is to provide environmental information to policy makers and the public and to assist the EU institutions and the EEA member countries to identify, frame, prepare and implement sound and effective environmental policy measures and legislation. In relation to the biodiversity aspects of the EEA mission, the EPA will undertake actions as set out below.

Activity			Actions	Partners	Timescale
I1-1	Provision of biodiversity-related data for Ireland to the EEA	a	As National Focal Point (NFP), co-ordinate with the National Reference Centre, in this case the National Parks and Wildlife Service, in the provision of biodiversity related information to the EEA.	EEA, NPWS, also NBDC as appropriate	Annual priority data flows and others as per EEA requests
I1-2	Input to the development of the EEA's role in relation to biodiversity	a	Through participation in Workshops and in other ways as appropriate, facilitate input from Irish biodiversity expertise to inform the development of the EEA's role and procedures in relation to biodiversity and nature protection.	EEA, NPWS, NBDC	In response to EEA requests
I1-3	Support and inform the EEA's reporting on biodiversity and nature protection	a	Co-ordinate expert review of relevant sections of EEA reports or chapters on nature protection and biodiversity as part of quality assurance procedures.	NPWS, NBDC	In response to EEA requests

Geographic Information Systems (I2)

Office: OEA

The EPA has developed its Geographic Information Systems (GIS) capability significantly in recent years to include an on-line mapping facility and dedicated resources to support the work of various units within the Agency. This system includes, as appropriate, information on areas protected for nature conservation.

Activity			Actions	Partners	Timescale
I2-1	Maintenance of internal GIS resources to support the Agency's environmental protection functions	a	Maintain up-to-date information on SACs, SPAs and other protected areas in the EPA intranet GIS system as a reference source for licensing and enforcement inspectors and others on the locations and extent of these sites.	NPWS	Ongoing
		b	Maintain a Water Framework Directive Register of Protected Areas that includes reference to economic species (Shellfish, Salmon), the Habitats Directive and the Birds Directive.	NPWS	Ongoing
I2-2	Development of national landcover mapping strategy	a	The EPA and a number of public sector agencies has worked to establish a national landcover mapping strategy which will develop the required data and associated maps via shared services between these agencies.	NPWS, OSI, HC, Teagasc	2012 - 2016

Examples of Key Completed Actions – 12

The EPA has established a national GIS based mapping facility which includes information on SAC and other environmental features.
<http://gis.epa.ie/SeeMaps>

Strategic Environmental Assessment (I3)

Office: OEA

The EPA is one of the statutory national environmental authorities designated under the Strategic Environmental Assessment (SEA) Directive. SEA is the process by which environmental considerations are required to be fully integrated into the preparation and adoption of plans and programmes. The objective of the SEA process is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of specified plans and programmes with a view to promoting sustainable development. Biodiversity and related environmental topics such as water, soil and geology are key aspects with relevance to SEA. The integration of biodiversity considerations and the halting of the decline in biodiversity is embedded in the SEA Process.

Activity		Actions		Partners	Timescale
I3-1	Implementing the SEA Directive	a	Contribute to determinations as to whether proposed plans or programmes would have an adverse impact on any areas that are known to have high biodiversity importance-NHAs, SACs and SPAs, vulnerable aquifers, surface waters, fisheries and undesignated wetlands etc.		
		b	Encourage sectors to include specific objectives and policies in their plans and programmes for the protection of waters, habitats, flora and fauna both in the SEA process and the resulting Environment Report. These objectives and policies should include, where relevant and appropriate, the following: <ul style="list-style-type: none"> • Designated habitats and species; • Threatened habitats and species and “Major Pressures identified in the National Parks and Wildlife Services Report”; • Biodiversity Action Plans; • Management Plans for SACs, SPAs and NHAs; 	NGO’s, BWI, NPWS, IFI, OPW, HC, IEEM, LA’s, Relevant Gov. Depts. & State Bodies	Ongoing

			<ul style="list-style-type: none"> • Buffer zones between designated ecological sites and areas zoned for development; • Consultation with NPWS to screen the plan/programme for appropriate assessment; • Incorporation of Appropriate Assessment recommendations in the Plan/programme; • Non-designated habitats, species and local biodiversity features including rivers, wetlands, hedgerows, individual trees, streams, grasslands, coastal areas etc.; • Linkages between local biodiversity features and ecological networks e.g. stone walls, hedgerows and watercourses; • Habitat Mapping (including Wetlands); • Alien/invasive species and noxious weeds; • River Basin District-River Basin Management Plan and associated Programme of Measures; • Groundwater resources and associated habitats and species. 		
I3-2	Research Projects to be Completed	a	STRIVE project 2013-B-FS-4: National Environmental Sensitivity Mapping Tool (MU, 2014-2016): The objective of this study is to deliver a mapping tool to facilitate the systematic consideration and integration of environmental issues in to sector plans and programmes.	MU	2014-2016
		b	STRIVE project 2012-SL-FS-5: Development and Testing of Key Performance Indicators for the Evaluation of SEA Effectiveness in Ireland (UL, 2012-2014)	UL	2012-2014
		c	STRIVE project 2013-SL-DS-3: Toward Better Practice for the Preparation of SEAs/AAs for the Energy Sector in Ireland (DIT, 2014-2015)	DIT	2014-2015

	d	STRIVE project 2013-SL-DS-1 : Development of a methodology/framework for generating and evaluating alternative spatial and non-spatial scenarios (UCD, 2013-2014)		2013-2014
	e	SEA Team guidance in development		

Key Examples of Completed Actions – 13

The following research reports have been published:

- **Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland** (Scott, P., and Marsden, P. 2003)
- **Review of Effectiveness of SEA in Integrating Environmental Considerations into Plans and Programmes in Ireland (EPA, 2012):** Review of Effectiveness of SEA in Ireland - Key Findings & Recommendations
- **STRIVE Report 106, 2013: Integrated Biodiversity Impact Assessment - Streamlining AA, SEA and EIA Processes - Practitioner's Manual (PI: Dr Ainhoa González)**
The Integrated Biodiversity Impact Assessment (IBIA) methodology presented seeks to ensure that legal requirements are fulfilled while, at the same time, effectively and efficiently connecting relevant procedures, allowing the sharing and reuse of biodiversity data and scientific knowledge supported by a Geographic Information Systems (GIS) framework, and integrating biodiversity considerations with a variety of other concerns during planning and design processes.

The EPA took a lead in setting up the National Technical SEA Forum.

The EPA plays a lead role in Regional SEA Fora.

State of the Environment Reporting (I4)

Office: OEA

The EPA is mandated under the EPA Act to prepare and publish a report on the State of the Environment in Ireland at intervals not exceeding four years. Reporting on the status of biodiversity is a key aspect of these reports.

	Activity		Actions	Partners	Timescale
I4-1	Reporting on the State of the Environment in Ireland, including biodiversity	a	<p>The EPA aims to publish its next Statement of the Environment (SOE) report in 2016. As part of this report, the EPA shall:</p> <ul style="list-style-type: none"> • Provide an overview of Ireland's biodiversity and the status of habitats and species; • Describe the national legislative and policy framework; • Assess the pressures affecting Ireland's biodiversity; • Assess the actions being taken to address these pressures; and, • Consult with, and gather information from, a wide array of relevant stakeholders. 	EC, NPWS, various Gov. Depts. BG, NGOs including BWI, HC, NBDC, IFI, MI, semi-state agencies	2016 and ongoing
I4-2	Reporting on Environmental Indicators, including indicators relevant to biodiversity	a	<p>Macro-environmental indicators are important tools for translating and delivering concise, scientifically credible information in a manner that can be readily understood and used by decision-makers at all levels. The EPA:</p> <ul style="list-style-type: none"> • Launched its web-based resource of environmental indicators <i>Environment in Focus</i> in 2010. This has since been re-named <i>Ireland's Environment</i> and is closely linked to the State of Environment report. The EPA aims to keep this resource as up-to-date as possible and is reviewing its indicator list in 2014 to ensure that it continues to meet the needs of its audience. • Consult with, and gather information from, a wide array of relevant stakeholders. 	See above	2014 and ongoing

Key Examples of Completed Actions – I4

The EPA has published State of the Environment reports at four yearly intervals since 1996. The most recent report was published in 2012 and the next report due in 2016. Each of these reports included information on the state of Ireland's biodiversity and on the measures being taken to ensure its protection. In addition, the EPA's web resource, Ireland's Environment, provides up-to-date assessments, indicators and a thematic factsheet relating to nature and biodiversity (www.epa.ie/irelandsenvironment).

ENVIRONMENTAL REGULATION (E)



Environmental Licensing (E1)

Office: OCLRR

The EPA has been licensing specified activities since 1994. The following are authorised by the Agency: Industrial Emission (IE), Integrated Pollution Control (IPC) and Waste authorisations for specified, significant facilities; Waste Water Discharges Authorisations from sewerage systems owned, managed and operated by water service authorities; Dumping at Sea permits; volatile organic compound (VOC) permits emissions resulting from petrol storage and distribution terminals. The Environmental Licensing Programme will continue to require licence/permit applicants to provide details of the impact their activity may be having on the surrounding environment. This will include details of the impact of the activity on wildlife, habitats and fisheries.

Activity		Actions		Partners	Timescale
E1-1	Licence/Permit Applications	a	Applicants will be required, where necessary, to undertake and submit appropriate assessments and ecological studies as part of their application forms	Licence/Permit applicants	Ongoing
E1-2	Licence/Permit Conditions	a	Where necessary, IPC, IE and Waste Licences will contain specific conditions to ensure that there is no impairment of, or interference with, particular habitats or species	Licensees, Specified Bodies	Ongoing
		b	Where required, Waste Water Discharge Authorisations will contain conditions requiring the licensee to undertake monitoring and ecological assessment.		Ongoing
		c	Where required, Dumping at Sea Permits will contain specific conditions requiring the permit holder to undertake ecological monitoring and assessment.		Ongoing
		d	Licence / Permit conditions will require licensees/ permit holders to undertake frequent monitoring to ensure they are not impacting on their surrounding environment and/or biodiversity.		Ongoing
		e	All licences/permits will continue to ensure that the operations will not cause environmental pollution if licensees/permit holders comply with all conditions specified.		Ongoing

E1-3	Response to notices	a	The Environmental Licensing Programme will continue to make observations on Notices of Intention to Designate SACs and SPAs submitted by the National Parks and Wildlife Service	NPWS	Ongoing
------	---------------------	---	--	------	---------

Key Examples of Completed Actions – E1

Licences / Permits are regularly updated to ensure continued compliance with the provisions of the Habitats Regulations and to provide for protection for wildlife, habitats and fisheries from licensed / permitted activities.

A note on how to conduct an Appropriate Assessment has been published to assist Local Authorities assess the impact of waste water discharges on SACs and SPAs . Note published to web (<http://www.epa.ie/downloads/forms/lic/wwda/name,26010,en.html>) and copies sent to all Local Authorities.

Enforcement Activities (E2)

Office: OEE

Enforcement of facilities authorised by the Agency (e.g. municipal waste water, IPPC and significant waste facilities) by the Office of Environmental Enforcement can have a positive impact on biodiversity. The Agency also has oversight over the environmental enforcement responsibilities of local authorities.

Activity		Actions		Partners	Timescale
E2-1	Enforcement of Waste Water Discharge Licences	a	Undertake a programme of risk based enforcement to prevent any potential adverse impacts on biodiversity including; the enforcement of specific conditions relating to the protection of designated sites (SACs/SPAs), improved effluent quality through enforcement of licence emission limit values for discharges, and monitoring and reporting of waste water discharges.	Irish Water	Ongoing
E2-2	Enforcement of IPPC and Waste Licences	a	Enforce specific conditions in IPPC and Waste Licences that relate to biodiversity.	Licence holders, Local Authorities.	Ongoing
E2-3	Seriously polluted river stretches	a	Continue to collect the most recent information on seriously polluted rivers from OEA. Progress reduction of seriously polluted river sites using enforcement powers, including Section 63. Identify new seriously polluted river sites annually. Improve the enforcement of water legislation by local authorities.	Local authorities	Ongoing
E2-4	Preservation of high status water status	a	Further to analysis of the principal causes of the loss of high water quality status by OEA, preserve the status of these high quality sites.	Local authorities	Ongoing
E2-5	Wetlands Protection	a	Continue to protect wetlands through the prevention of illegal disposal of waste materials and the enforcement of waste regulations including the removal of waste material.	Local authorities	Ongoing

E2-6	Waste Water Sludge Management	a	Continue to protect wetlands through the prevention of illegal disposal of waste materials and the enforcement of waste regulations including the removal of waste material.		
E2-7	Audits of Drinking Water Treatment Plants	a	Ensure appropriate management of Waste Water Sludge at a national level.	Irish Water	Ongoing
		b	Reduce risks to habitats and species caused by the improper disposal to rivers of drinking water sludge.	Irish Water	Ongoing

Key Examples of Completed Actions – E2

Dissemination and raising awareness for the document “Guidance for the farming community on Protection of Water Resources and Habitat Quality from Impacts due to Livestock Access to Waters”.

The EPA report on Water Quality in Ireland 2007 to 2009 (EPA , 2012) attributes serious pollution at nine river sites to urban waste water discharges from eight waste water works. EPA biological monitoring in 2012 found that certain urban waste water continue to cause pollution at eight river sites. These river sites must be restored to at least good status.

Restoration of wetlands by removal of illegally dumped waste material.

In 2011 the Agency secured an injunction preventing extraction of peat without a licence from Timoney Bog, Roscrea Co. Tipperary located within the Nore Valley Bog’s Natural Heritage Area.

In 2013 the Agency received cutaway bog rehabilitation plans for all its IPPC licensed installations.

In 2014 court proceedings case involving Timoney bog and Harte Peat were successful in clarifying the requirement for licences issued by the Agency.

Genetically Modified Organisms (E3)

Office: OCLRR

The Environmental Protection Agency is the competent authority in Ireland for the contained use and deliberate release of GMOs. Notifiers requesting consent to carry out Contained Use Genetically Modified Micro-Organism (GMM) activities are required to carry out a risk assessment where the possibility of harmful effects on the environment are assessed.

Activity		Actions		Partners	Timescale
E3-1	Contained Use Notifications	a	Continue to issue consent conditions that include the requirement for specific measures be put in place to ensure safe containment of the GMOs in the laboratory.	GMO Advisory Committee	Ongoing
E3-2	Contained Use Enforcement	a	Continue to carry out GMO Enforcement visits to ensure appropriate containment measures are in place and validated waste inactivation procedures are being used to limit the contact of the GMOs with the environment. GMO Enforcement visits will be carried out on a 3 yearly basis for Class 1 GMMs (industry), Class 2 GMMs (all), Class 3 GMMs (all) and GMOs (all). They will be carried out on a 6 yearly basis for Class 1 GMMs in academic facilities.		
E3-3	Deliberate Release Part B – Field Trials & Clinical Trials	a	Continue to require all users registered for the contained use of Class 2 and 3 GMMs, and GMOs to submit annual reports to the Agency. Such reports must detail any changes to the risk assessment or containment measures applied, as appropriate. Class 1 GMM users are still required to submit Risk assessments where new work is undertaken.		
E3-4	Deliberate Release Part C – Placing on the Market	a	Require applicants wishing to carry out a Part B Deliberate Release (Field Trial & Clinical Trials) to carry out an environmental risk assessment (ERA) and submit it to the Environmental Licensing Programme. The Environmental Licensing Programme will assess the ERA and issue consent conditions. The consent conditions address: conditions of release, the receiving environment, the interaction between the GMO and the environment. The consent conditions also include requirements for monitoring, control, waste treatment and separation distances (in the case of field trials).		

E3-5	Deliberate Release Part C – Placing on the Market	a	The Agency will monitor ongoing field trials in accordance with consent conditions issued in respect of those trials.		
		b	Provide comments through the centralized European procedures to the European Medicines Agency and the European Food Safety Authority for products to be placed on the market. Provide comments on the environmental aspects of the notifications.		
		c	The Cartagena Protocol on Biosafety established common rules to be followed in trans boundary movements of LMOs (living modified organisms) in order to ensure, on a global scale, the protection of biodiversity and of human health.		
E3-6	Trans boundary Movement of GMOs	a	Continue the EPA role as the Competent Authority for notifying and exchanging information on the trans boundary movements of GMOs to third countries, outside the European Union (EU).	EU Member States	

Key Examples of Completed Actions - E3

The EPA has issued a number of licences for field trials of genetically modified crops in Ireland. The licences incorporated conditions regarding post release monitoring studies for the impacts of the field trials on biodiversity.

Resource and Chemicals Management (E4)

Office: OCLRR

The EPA undertakes a number of activities in relation to resource management, waste minimisation and controls on hazardous substances. Such activities support biodiversity protection in various ways, many of which are indirect, rather than having a direct bearing. Persistent and bio-accumulating substances in the environment can have drastic consequences, particularly for species that are in the top part of the food chain, and control of these substances is of particular relevance to biodiversity protection.

Activity		Actions		Partners	Timescale
E4-1	Managing and controlling persistent organic pollutants (POPs)	a	Undertake the EPA's functions in relation to Persistent Organic Pollutant Regulations (S.I. 235 of 2010) and EU POPs Regulation (EC) 850 of 2004.	Public Authorities listed in the national POPs Regulations (e.g. Local Authorities, FSA, DAFM, Marine Institute)	Ongoing
		b	Overseeing the implementation of the National Implementation Plan on POPs which includes roles and responsibilities assigned to a number of public authorities. The Plan includes an assessment of POPs in Ireland and measures in place to protect human health and the environment from POPs. The Plan also outlines further activities which will be carried out to support the control of POPs.		
E4-2	National Hazardous Waste Management Plan	a	Preparation of the National Hazardous Waste Management Plan 2014-2020. The EPA is responsible for fulfilling specific implementation roles in addition to monitoring and reporting on the Plan's implementation. This plan aims to ensure that hazardous waste does not impact on the environment including biodiversity.	stakeholders involved in the management of hazardous waste	Ongoing

E4-3	Implementation of REACH	a	Co-operate with other stakeholders in implementation of the REACH Regulation (EC No. 1907/2006). Provide input, where required, into the REACH registration, evaluation, authorisation and restriction processes, with the aim of ensuring prevention of environmental pollution.	HSA, DAFM, DJEI, DECLG, EC, EPA, Industry	Ongoing
------	-------------------------	---	---	---	---------

Environmental Liability Directive (E5)

Office: OEE

The EPA is the designated Competent Authority for enforcing the requirements of the ELD. The Environmental Liability Regulations (S.I. No. 547 of 2008) entered into force on April 1st 2009, and has transposed the majority of the requirements of the Environmental Liability Directive 2004/35/CE with regard to the prevention and remedying of environmental damage. The purpose of the Directive is to establish a framework of environmental liability based on the 'polluter pays' principle and to prevent and remedy environmental damage. The legislation covers damage to protected species and natural habitats, land damage and water damage where an operator causes damage or imminent threat of damage. However, the provisions of the ELD are "self-executing" which means that operators are placed under a direct duty to act without being told to do so by the EPA first.

Activity		Actions		Partner	Timescale
E5-1	Implement the Environmental Liability Regulations S.I. No. 547 of 2008 and subsequent amending Legislation	a	<p>Implement the legislation as it pertains to damage or imminent threat of damage to protected species and natural habitats.</p> <p>Environmental damage in relation to protected species and natural habitats is any damage that has significant adverse effects on reaching or maintaining the favourable conservation status of the species and habitats protected under the Birds Directive and Habitats Directives, including migratory birds anywhere, whether in or outside designated Natura 2000 sites. The significance of such effects is to be assessed with reference to the baseline condition, taking account of the criteria set out in Annex I of the Environmental Liability Directive.</p> <p>In this regard, the two main types of designation are as follows:</p> <ul style="list-style-type: none"> • Special Area of Conservation (SAC) - Habitats Directive; and • Special Protected Area (SPA) - Birds Directive; <p>The legislation also applies to the following:</p> <ul style="list-style-type: none"> • Nature Reserves; 	DECLG, NPWS, DECNR, DAFM, DTTAS	Ongoing

		<ul style="list-style-type: none"> • National Parks; • Refuges for Fauna or Flora; • Wildfowl Sanctuaries; • Management Agreements. <p>A full list can be found in Appendix C of the Environmental Liability Regulations Guidance Document which is available at http://www.epa.ie/pubs/advice/general/environmentalliabilityregulations.html</p> <p>Where operators cause environmental damage as defined under ELD, they are required to take remedial measures to ensure the remedying of the environmental damage. For biodiversity damage remediation can consist of primary, complementary and compensatory restoration as set out in Schedule 2 of the Regulations.</p> <p>The main functions/powers of the Agency (Competent Authority) to be carried out under the ELD are:</p> <ul style="list-style-type: none"> • Assess where possible that Environmental Damage has occurred/imminent threat of occurring. • Issue directions to operator(s) to eliminate imminent threat of Environmental Damage. • Require that preventative measures are taken by the operator. • Where Environmental Damage has occurred determines remedial measures and issue directions to operator(s) responsible. • Recover all costs incurred by the EPA associated with the Environmental Damage or imminent threat. • Prosecute as necessary any failure to comply with directions issued or failure to pay costs. • Consider a request for action from a person(s) who is affected or likely to be affected by the instance of environmental damage, or (b) has a sufficient interest in the decisions relating to the environment made by the Agency. • Member States are asked to encourage the development of financial security instruments to pay for any environmental damage 		
--	--	---	--	--

			they may cause, but there is no requirement currently to include compulsory provisions on financial security.		
E5-2	Complete current action	a	An inter-agency Steering Group will be established to answer specific issues that arise from the regulations. The Environmental Liability Unit will ensure to liaise with the Biodiversity Action Plan		
		b	STRIVE project 2011-SD-DS-2: Ecosystem services valuation for environmental risk and damage assessment – ECORISK (UCD)		2015

Key Examples of Completed Actions – E5

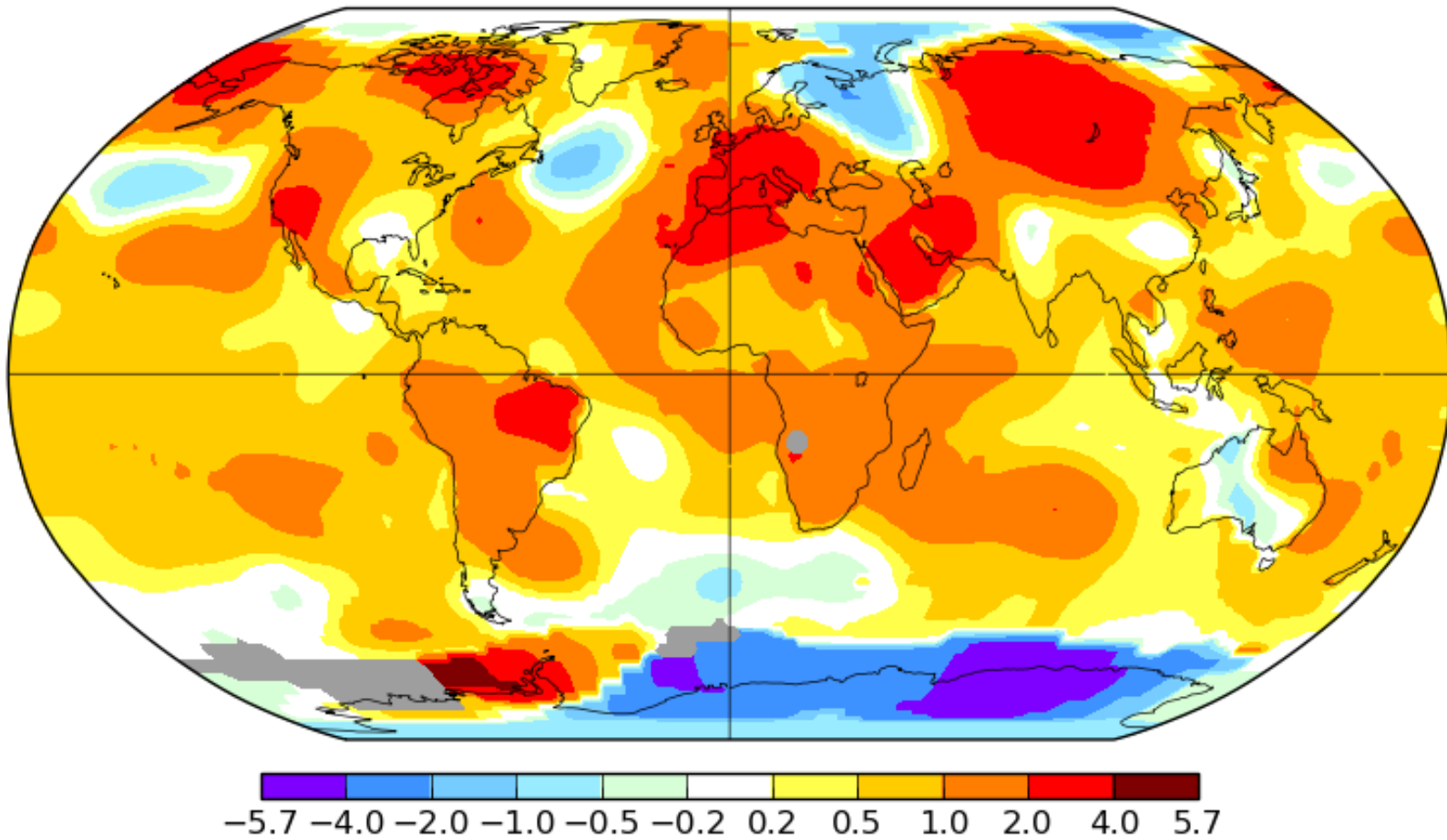
Environmental Liability Regulations - Guidance Document (2011): The EPA has produced guidance on the European Communities (Environmental Liability) Regulations 2008 and this is available at <http://www.epa.ie/pubs/advice/general/environmentalliabilityregulations.html>

Climate Change (CC)

June 2017

L-OTI(°C) Anomaly vs 1951-1980

0.66



Climate Change (CC1)

Office: OCLRR

Biodiversity will change as a result of climate change. The *status quo* cannot be maintained. This is recognized in the United Nations Framework Convention on Climate Change (UNFCCC), sister convention to the Convention on Biological Diversity (CBD), which aims include “to allow ecosystems to adapt naturally to climate change.” Climate change impacts will change species distribution, reproduction, growth, migration and interactions. Other stresses (habitat clearing, grazing, and water extraction) will also reduce the capacity of the biological systems to adapt to climate change naturally. Supports may be required to maintain a viable level of biodiversity in the context of loss of existing species, arrival of new species and ecosystem fragmentation. It will be necessary to establish the limitations of intervention in protecting critically challenged ecosystems and prepare for management of vulnerable ecosystems. The EPA is recognized as the authoritative source of information on climate change in Ireland.

	Activity		Actions	Partners	Timescale
CC4-1	Commission Research Relevant to Climate Change	a	Issue research calls relating to climate change impacts, vulnerability and adaptation. The aim of this thematic area is to co-ordinate research on future climate conditions and their impacts for Ireland. This includes the responses of managed and natural systems to climate change. Research in this area could include: assessment of biodiversity and ecosystems services responses to climate change; the role of ‘green’ adaptation responses such as green infrastructure in adaptation planning.	DECLG, DAFM, DCENR, DTTAS, OPW, SEAI, Met Éireann, CSO, MI, NPWS, NBDC, NGOs (e.g. BWI), Third Level Institutions.	Ongoing
CC4-2	Awareness Raising	a	The project ‘Climate change impacts on phenology: implications for terrestrial ecosystems’ established Ireland’s National Phenology Network (IE-NPN) to coordinate phenological activity throughout the country. The number of designated phenological recording sites was expanded to include International Phenological Gardens (IPG) sites and a series of native species gardens. The		Ongoing

			combined networks will enable comparison of the timing of phenological phases of a range of trees at a European level using the IPG data and at a national level using the native species. The project also made advances under the 'citizen science' initiative. The <i>Nature Watch</i> website was established in collaboration with the National Biodiversity Data Centre to expand the range of species and the geographic area from which phenological data could be collected.		
CC4-3	Communication	a	Continue the series of public lectures on climate change and the use of EPA social media channels to inform the public on climate change related issues.		
		b	Organise and publicise the existing work and achievements of the EPA on climate change in Ireland in particular its research outputs.		
		c	Adopt a more proactive, strategic role in Ireland's climate change discussion, including potential impacts on biodiversity.		

Key Examples of Completed Actions - CC

Project: Co-ordination, Communication and Adaptation for Climate Change in Ireland: an Integrated Approach (CoCoAdapt) (Sweeney et al, 2013)—Work package 1 sought to quantify the impacts of climate change on biodiversity by defining the relationships between species and habitats deemed to be potentially vulnerable to climate change.

One of the reports from this project, “Winners and Losers: Climate change impacts on biodiversity in Ireland”, concluded that:

- Widespread changes are already occurring in natural systems and these will continue;
- These changes will accelerate in scope and scale in the coming decades due to greenhouse gases already in the atmosphere;
- The scale and extent of changes will continue to accelerate over longer timescales if greenhouse gas emissions continue unabated or increase;
- Conservation decisions will have to be made based on longer timescales than has traditionally been the case.

<http://www.epa.ie/pubs/reports/research/climate/ccrp30-cocoadapt.html>

Project: Current and Future Vulnerabilities to Climate Change in Ireland (Sweeney and Coll, 2012): This project identified biodiversity, fisheries, water resources, the built coastal environment, forestry and agriculture as key priority areas for further investigation.

Coastal Climate Adaptation in Ireland- Assessing current conditions and enhancing the capacity for climate resilience in local coastal management. Climate Change Research Report Programme (CCRP) 2007 - 2013 Report Series No. 28 (Faleeva, M et al 2013)

<http://www.epa.ie/pubs/reports/research/climate/climatechangeresearchreportnumber28.html>

Winners and Losers: Climate Change Impacts on Biodiversity in Ireland - Climate Change Research Programme (CCRP) 2007 - 2013 Report Series No. 19 (Coll, J. et al 2013) <http://www.epa.ie/pubs/reports/research/climate/climatechangeresearchreportnumber19.html>

Climate Change Impacts on Phenology: Implications for Terrestrial Ecosystems (Climate Change Research Programme (CCRP) 2007 - 2013 Report Series No. 22)

The study links increasing air temperature, particularly in Spring, to the earlier emergence of leaves which contributes to a longer growing season. However, trends in autumn, towards later leaf fall for example, were much less obvious possibly as day-length is a stronger environmental cue than temperature.

<http://www.epa.ie/pubs/reports/research/climate/climatechangeresearchprogrammereportnumber22.html>

The Status of Ireland's Climate, 2012 - Climate Change Research Programme - CCRP Report 26 (O'Dwyer, N. et al 2013)

<http://www.epa.ie/pubs/reports/research/climate/CCRP26%20-%20Status%20of%20Ireland's%20Climate%202012.pdf>

Ireland Adapts to Climate Change: Assessing Ireland's Capacity to Adapt to Climate Change (Desmond, M and Shine, T., 2011), focuses on the integration of climate-change adaptation into sectoral policies in Ireland. Sectors analysed include, agriculture, forestry, fisheries and biodiversity.

<http://erc.epa.ie/safer/iso19115/display?isoID=232>

A Summary of the State of knowledge on climate change impacts for Ireland (Desmond *et al.*, 2009); sets out impacts on a number of sectors including biodiversity.

[http://www.epa.ie/downloads/pubs/research/climate/CCRP1\(low\).pdf](http://www.epa.ie/downloads/pubs/research/climate/CCRP1(low).pdf)

Current status and required actions for national climate observing systems (Dwyer, 2009); documents the current observing capabilities of atmospheric, oceanic, terrestrial and hydrological domains-all of which are relevant to biodiversity.

<http://erc.epa.ie/safer/iso19115/displayISO19115.jsp?isoID=163>

Climate Change-Refining the Impacts for Ireland; this report includes a chapter on 'The Impact of Climate Change on Semi Natural Ecosystems in Ireland' in which biological indicators for climate impacts and phenological work are discussed. (Sweeney, et al., 2008,)

<http://www.epa.ie/downloads/pubs/research/climate/sweeney-report-strive-12-for-web-low-res.pdf>

MANAGEMENT AND COMMUNICATIONS (C)



Liaison with Stakeholders (C1)

All Offices

As noted in the Introduction, the EPA does not have the main responsibility in Ireland for nature conservation and biodiversity protection. This rests with the National Parks and Wildlife Service (NPWS). There are other organisations also that have related responsibilities and the EPA liaises with these organisations as appropriate in fulfilling its duties.

Activity		Actions		Partners	Timescale
C1-1	Liaison with NPWS	a	Organise an annual bilateral meeting with NPWS to review the full range of current and emerging issues of mutual interest and concern and arrange for other meetings and discussions as necessary on specific topics.	NPWS	Annually
		b	Negotiate and agree a Memorandum of Understanding with NPWS to cover areas of mutual collaboration.	NPWS	2015
C1-2	Liaison with the Heritage Council & National Biodiversity Data Centre.	a	Continue to serve as requested on the Management Board of the NBDC, which operates under the auspices of the Heritage Council. Provide the NBDC with species-level records from EPA monitoring programmes on a regular basis, once status assessments have been completed. Facilitate the transfer to the NBDC of records of species gathered as part of EPA funded research projects.	NBDC, Researchers	Ongoing
C1-3	Liaison with other statutory organisations.	a	Continue to liaise with other bodies as appropriate in the implementation of EPA functions as they pertain to biodiversity.	Local Authorities, Fisheries bodies, Marine Institute	As required
C1-4	Liaison with environmental Non-Governmental Organisations	a	Continue to organise bi-annual meetings with environmental NGOs through the Irish Environmental Network (IEN) for information exchange and arrange bilateral contacts with the NGOs as appropriate (for example BWI, Coastwatch), for example in the development of biodiversity related	IEN and its constituent NGOs	Bi-annually and as required

			environmental indicators for state of the environment reporting and for assessing the impacts of climate change.		
C1-5	Support Irish RAMSAR Wetlands Committee	a	Supporting and co-hosting the Irish Ramsar Wetlands Committee (irishwetlands.ie)	NPWS, Government	Ongoing
C1-6	Support the implementation of National Peatlands Strategy	a	Participating in the National Peatlands Strategy Implementation Group.	DECLG, NPWS, DCN BnM, NGO's	2014 onwards

Communication and Education (C2)

Offices: OCCS & OCLRR

The EPA undertakes communication and education activities in relation to its various functions, including its functions relating to biodiversity as set out in this document. In addition to its own intrinsic importance, the publicising of biodiversity issues adds to the overall visibility of the environment and increases general environmental awareness.

Activity			Actions	Partners	Timescale
C2-1	Engaging with key stakeholders such as media, general public, research community and schools to publicise the outputs of various	a	Continue to Promote the biodiversity outputs from the EPA Research Programme e.g., include as a topic in future Eco Eye series, upload related Eco Eye items under the general theme of Biodiversity on to the EPA website, raise awareness and encourage action through the Green Home project and promote biodiversity through EPA exhibitions (for example, at the BT Young Scientist and Technology Exhibition and the National Ploughing Championship).seminars, media etc.	NPWS Media	Ongoing

biodiversity research projects and reporting				
	b	Promote biodiversity education materials developed by the EPA for schools, for example, The Nature Pack for Primary Schools and the 2014 Biodiversity in our Wetlands resources for Second Level Schools (Transition Year, CSPE and Geography), developed with the assistance and advice of the National RAMSAR Committee.		
	c	Assess communications opportunities around upcoming EEA biodiversity products and support their dissemination via the Irish media.		

Examples of Completed Actions	
Promotion through the national media of various STRIVE reports through press releases - BioChange report, BioCheA, Boglands; High Status Waters; Symbiosis report.	
Education resources developed on a range of Biodiversity topics including – Nature, Forests, Bogs, Wetlands, the Burren and Our Seas for Primary and Second level schools. See: http://www.epa.ie/researchandeducation/education/primary/nature/	
Research Newsletter e-zine launched 10th March 2014.	
Presentation on Bird Atlas 2007-2011 recorded and uploaded to YouTube.	
The EPA has supported television programming which promotes the environment: EcoEye, Ireland's Oceans, Wexford Wildlife	

Operations and Facilities (C3)

All Offices

The EPA takes into consideration any potential impact on biodiversity from its own activities, including its fieldwork programmes and the management of its own grounds and facilities. The EPA has an active Green Team and has produced a report on its activities for 2010-2012.

Activity			Actions	Partners	Timescale
C3-1	Prevention of transfer of alien species between aquatic sites	a	EPA staff will continue to rigorously adhere to standard operating procedures to prevent the transfer of alien species between aquatic habitats during sampling.		Ongoing
C3-2	Minimising of disturbance to wildlife during field operations	a	Continue to liaise with Wildlife Rangers and others as appropriate to minimise any potential disturbance to wildlife from fieldwork activities, for example along banks and shorelines.	NPWS Wildlife Rangers	Ongoing
C3-3	Managing EPA grounds in a manner that supports biodiversity	a	Undertake the management and maintenance of grounds in its control in an environmentally friendly manner, for example by the planting of native species, and through particular features such as wildflower meadows, ponds and hedgerows.		Ongoing
C3-4	Reviewing all EPA activities to ensure they are 'biodiversity-proofed.'	a	Periodically review the full range of EPA activities, including procurement and new functions assigned to the Agency, to ensure that they are implemented in a manner that protects habitats and species and promotes biodiversity.	NPWS and others as appropriate	Ongoing

C3-5	Use of Green Hotels	a	The EPA will endeavour to only use hotels which participate in the Green Hospitality scheme http://www.epa.ie/begreen/programmes/title,42932,en.html#.U7a8W9BwZM w		Ongoing
------	---------------------	---	---	--	---------

Biodiversity Cross Office Team (C4)

All Offices

The EPA strategy *2020 Vision – Protecting and Improving Ireland’s Environment* stated that the EPA would maintain a biodiversity team and produce a BAP. Action 1.1 of the National Biodiversity Plan, *Actions for Biodiversity 2011-2016*, requires that relevant Government Departments and State Agencies should produce a biodiversity action plan in line with the NBP to ensure and promote the conservation and sustainable use of biodiversity.

	Activity		Actions	Partners	Timescale
C4-1	Maintain a Cross-Office Biodiversity Team	a	Meet twice per annum to review biodiversity as it relates to the Agency.		Biannually

		b	Assist with the various activities relating to biodiversity undertaken across the various Offices.		As required
		c	Prepare the Agency's BAP 2017-2019		2016
		d	Report on activities of the BCOT to the Board annually		Q1 each year
		e	Prepare annual report on actions completed for BAP		Q1 each year
		f	Contribute to the prioritisation of EPA Research Programme projects in this area.		Annual Research Call
C4-2	National Biodiversity Plan	a	Participate on behalf of the Agency in the National Biodiversity Working Group which aims to advance the implementation of the NBP.	NPWS, various Government departments and agencies	As required
		b	Collate Agency actions undertaken to deliver targets specified in the NBP and report to the national Biodiversity Working Group.	NPWS	Biannually
C4-3	Liaison with NPWS	a	Organise an annual bilateral meeting with NPWS to review the full range of current and emerging issues of mutual interest and concern and arrange for other meetings and discussions as necessary on specific topics.	NPWS	Ongoing
		b	Negotiate and agree a MoU with NPWS to cover areas of mutual collaboration.	NPWS	2015
C4-4.	Liaison with the NBDC	a	Continue to serve as requested on the Management Board of the NBDC, which operates under the auspices of the Heritage Council.	NBDC	Ongoing
		b	Facilitate the transfer to the NBDC of records of species gathered as part of EPA funded research projects.	Researchers	Ongoing

C4-5	Liaison with other statutory organisations	a	Continue to liaise with other bodies as appropriate in the implementation of EPA functions as they pertain to biodiversity.	Local Authorities, fisheries bodies, Marine Institute	As required
C4-6	Liaison with environmental Non-Governmental Organisations	a	Continue to organise bi-annual meetings with environmental NGOs through the Irish Environmental Network (IEN) for information exchange and arrange bilateral contacts with the NGOs as appropriate (for example BWI, Coastwatch), for example in the development of biodiversity related environmental indicators for state of the environment reporting and for assessing the impacts of climate change.	IEN	Bi-annually
		b	Participate in bilateral contacts with the NGOs (for example BWI, Coastwatch) as appropriate (for example in the development of biodiversity related environmental indicators for State of the Environment reporting and for assessing the impacts of climate change).	NGOs	As required
C4-7	5.4.5 Support Ramsars Peatlands Strategy	a	Supporting and co-hosting the Irish Ramsar Wetlands Committee (irishwetlands.ie).	NPWS-DAHG, DAFM, DECLG, BWI, Coastwatch, Heritage Council, heritage officers, local authorities.	Bi-annually and as required
C4-8	5.4.6 Support National Peatlands Strategy Support adoption of Natural Capital approach	a	Participate in the National Peatlands Strategy Implementation Group.	DECLG/NPWS/D CNR /BnM/NGO's	2014 onwards
			Participating in the development of the Natural Capital Ireland Forum	NPWS	2014 onwards

Key Examples of Completed Actions

The EPA Cross-Office Biodiversity Team was first established in October 2007 as a cross-cutting team with representatives from each of the Offices of the Agency.

Produced the Agency's first BAP: BIODIVERSITY ACTION PLAN 2011-2013.
Participated in meetings of the national Biodiversity Working Group and reported on Agency actions assigned in the NBP.
Made submission on the draft National Peatlands Strategy 2014.
Reviewed shortlisted research calls for the Natural Capital & Ecosystem Services theme of the 2014 Sustainability Research pillar call.

Conclusion

Each of the tables above identifies the EPA Offices undertaking the actions towards the implementation of the Agency's Biodiversity Action Plan. For the most part, these actions form part of the routine wider functions of the respective Offices but they can be given enhanced focus, coherence and recognition through their implementation in the context of this Biodiversity Action Plan.

Tracking actions in the implementation of this plan will be undertaken on a regular basis by the EPA Biodiversity Cross-Office Team with reports prepared for the EPA Board as input to the wider process of reporting on the implementation of the 2020 Vision strategy.

Through the preparation and delivery of this plan the EPA has demonstrated its commitment to the protection and enhancement of biodiversity as a part of its wider mission.

To protect and improve the natural environment for present and future generations, taking into account the environmental, social and economic principles of sustainable development



Acronyms and Links

Acronym	Description	Link
BAP	Biodiversity Action Plan	
CBD	Convention on Biological Diversity	http://www.cbd.int/
CMRC	Coastal and Marine Research Centre, University College Cork	http://cmrc.ucc.ie
CSO	Central Statistics Office	http://www.cso.ie/
C4I	Community Climate Change Consortium for Ireland	http://erc.epa.ie/safer/iso19115/display?isoID=15
DAFM	Department of Agriculture, Food and the Marine	http://www.agriculture.gov.ie/
DCENR	Department of Communications, Energy and Natural Resources	http://www.dcenr.gov.ie/
DECLG	Department of Environment, Community and Local Government	http://www.environ.ie/
DIT	Dublin Institute of Technology	
DJEI	Department of Jobs, Enterprise and Innovation	http://www.djei.ie/
DTTAS	Department of Transport, Tourism and Sport	http://www.transport.ie/
EEA	European Environment Agency	http://www.eea.europa.eu/
EFSA	European Food Safety Authority	http://www.efsa.europa.eu/
ELU	Environmental Liability Unit	http://www.epa.ie/enforcement/liab/
EMEA	European Medicines Agency	http://www.emea.europa.eu/
EPA	Environmental Protection Agency	http://www.epa.ie/
EPBRs	European Platform for Biodiversity Research Strategy	http://www.epbrs.org/
ERA	Environmental Risk Assessment	
ERTDI	Environmental Research Technological Development and Innovation; EPA research programme 2000-2006. Replaced by STRIVE.	http://www.epa.ie/researchandeducation/research/
EU	European Union	http://europa.eu/
FEPS	Forest Environment Protection Scheme	http://www.teagasc.ie/forestry/grants/feaps.asp
GIS	Geographic Information Systems	
GMM	Genetically Modified Micro-organism	
GMO	Genetically Modified Organism	
GSI	Geological Survey of Ireland	http://www.gsi.ie/
HSA	Health and Safety Authority	http://www.hsa.ie/
ICARUS	Irish Climate Analysis and Research Units	http://icarus.nuim.ie/
IEEM	Institute of Ecology and Environmental Management	

IEN	Irish Environmental Network	http://www.ien.ie/
IFI	Inland Fisheries Ireland	http://www.fishinginireland.info
IPPC	Integrated Pollution Prevention Control	http://www.epa.ie/licensing/ipc/
ISI	Invasive Species Ireland	http://invasivespeciesireland.com/
LIDAR	Light Detection and Ranging	LIDAR is a remote sensing technology that measures distance by illuminating a target with a laser and analysing the reflected light.
MI	Marine Institute	
MSFD	Marine Strategy Framework Directive	http://www.environ.ie/en/Publications/Environment/Water/FileDownload,32063,en.pdf
NBP	National Biodiversity Plan 2011-2016	
NFP	National Focal Point	
NGO	Non-Governmental Organisation	
NHA	Natural Heritage Area	http://www.npws.ie/protectedsites/naturalheritageareasnha/
NIEA	Northern Ireland Environment Agency	http://www.ni-environment.gov.uk/
NIP	National Implementation Plan	
NPBR	National Platform for Biodiversity Research	http://www.biodiversityresearch.ie/
NPWS	National Parks and Wildlife Service	http://www.npws.ie/
NSDB	National Soils Database	http://erc.epa.ie/nsdb
NUIG	National University of Ireland, Galway	http://www.nuigalway.ie/
MU	National University of Ireland, Maynooth	http://www.nuim.ie/
OCCS	Office of Communications and Corporate Services	http://www.epa.ie/about/org/occs/
OCLRR	Office of Climate, Licensing, Research and Resource Use	http://www.epa.ie/about/org/oclr
OEA	Office of Environmental Assessment	http://www.epa.ie/about/org/oea
OEE	Office of Environmental Enforcement	http://www.epa.ie/about/org/oee/
OPW	Office of Public Works	http://www.opw.ie/
OSI	Ordnance Survey Ireland	http://www.osi.ie/
PI	Principal Investigator	
POPs	Persistent Organic Pollutants	http://www.environ.ie/en/Environment/Atmosphere/AirQuality/PersistentOrganicPollutants/
RBD	River Basin District	http://www.wfdireland.ie/links.html
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals	http://ec.europa.eu/enterprise/sectors/chemicals/reach/index_en.htm
SAC	Special Area of Conservation	SAC-NPWS
SEA	Strategic Environmental Assessment	http://www.epa.ie/monitoringassessment/assessment/sea/
SEAI	Sustainable Energy Authority of Ireland	http://www.seai.ie/

SOE	State Of the Environment	http://www.epa.ie/monitoringassessment/assessment/soe/
SPA	Special Protection Area	Special Protection Areas (SPA) - National Parks & Wildlife Service
STRIVE	Science, Technology, Research and Innovation for the Environment: EPA research programme 2007-2013.	http://www.epa.ie/researchandeducation/research/
TCD	Trinity College Dublin	http://www.tcd.ie/
UCC	University College Cork	http://www.ucc.ie/
UCD	University College Dublin	http://www.ucd.ie/
UNFCCC	United Nations Framework Convention on Climate Change	http://unfccc.int/2860.php
WFD	Water Framework Directive	http://www.wfdireland.ie/

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 gcloíonn 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 Géinmhodhnaithe (*OGM*);
- foinsí radaíochta ianúcháin (*m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíocha*);
- áiseanna móra stórála peitril;
- 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 dhíriú 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 ídionn 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 screamhuisc; 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-ocsaíde carbóin is mó in Éirinn.

Taighde agus Forbairt Comhshaoil

- Taighde comhshaoil a chistiú chun brúnna a shainaitheint, 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 chinnnteoireacht 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 dramhaíl ghuaiseach a chosaint agus a bhainistiú.

Múscailt Feasachta agus Athrú Iompraíochta

- Feasacht chomhshaoil 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
- Oifig um Chosaint Radaíochta agus Monatóireachta Comhshaoil
- 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 inní agus le comhairle a chur ar an mBord.

Environmental Protection Agency Biodiversity Action Plan 2014 - 2018

Our role in protecting Ireland's biodiversity

