



South West Munster Five Year Forest Plan

2021 - 2025

Foreword

I have great pleasure in publishing Coillte's South West Munster Five Year Forest Plan for our forests. The purpose is to set out plans for the forest and non-forest business that will take place in the BAU (Business Area Unit) during the plan period. In practicing sustainable forest management Coillte's aim is to develop its forests in a way that is environmentally, socially and economically sustainable. A key part of our business is sharing our plans with our neighbours, communities and stakeholders and endeavouring to incorporate their views where possible.

The topics covered in the five year forest plan include:

Commercial Forest Planning:

- Tree Planting
- Timber Harvesting
- Timber Sales
- Forest Roads and Access
- Licenses and Lettings - Recreation
- Land Acquisition and Property Sales
- Non Forest Business such as Renewable Energy

Forest Planning for public benefits and public use:

- Community facilities and benefits
- Recreational and tourism infrastructure and partnerships
- Access to our forests
- Environmental enhancement measures such as biodiversity and nature conservation

Forest Planning for sustainable use of resources:

- Sustainable Forest Management
- Long Term Retention of Trees
- low impact silvicultural¹ systems
- water quality
- forest design
- use of chemicals



Bernárd Burke

Bernárd Burke

BAU Leader

¹ Growing, cultivating and felling trees

Statement of Compliance with Principles of Sustainable Forestry Management

The Coillte estate is a rich, high quality environmental resource, with the potential to interact with people, landscape, water and biodiversity. As such, Coillte recognises and seeks to minimise any potential adverse impacts of our business on the environment through responsible environmental management.

As part of our commitment to the stewardship of our forests, we seek and welcome comments and suggestions from stakeholders with regard to environmental issues. Through this partnership approach we also encourage co-operation from our stakeholders.

As a prerequisite to all our operations, Coillte is committed to the protection of the environment from all of our operations and activities associated with our forestry, property sales and energy businesses.

Our objectives are to:

1. Implement an organisation-wide system for managing environmental issues. The Director of Stewardship, Risk and Advocacy has responsibility for managing the implementation of our environmental management system (EMS).
2. Manage our business in full compliance with all applicable laws, directives and regulations, as well as voluntary external accredited schemes to which we subscribe e.g. the Forest Stewardship Council² (FSC[®]) and the Programme for the Endorsement of Forest Certification (PEFC[™]).
3. Prevent negative environmental impacts through a system of operational controls that include communication, written instructions and appropriate training
4. Continually improving environmental performance by setting and reviewing objectives & targets related to significant environmental risks and putting into effect programmes to reduce those risks.
5. Communicate, as appropriate, to Coillte staff and stakeholders, contractors and their employees and the communities within which we operate.

Bernárd Burke

BAU Leader

² FSC licence code FSC- C005714

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1. Coillte and Five Year Forest Plans

1.1 Coillte

Coillte is Ireland's leading forestry company and largest supplier of timber in Ireland with operations in timber panel production, renewable energy and land management. Our core purpose is to manage our forests sustainably and enable a vibrant forestry sector in Ireland. As the largest landowner in Ireland we enable the development of renewable energy projects on our lands in order to address climate change.

History

Coillte was established under the Forestry Act of 1988 as a private limited company registered under and subject to the Companies Acts 1963-86. All of the shares in the company are held by the Minister for Agriculture, Food and the Marine and the Minister for Public Expenditure and Reform on behalf of the Irish State. The Board of Directors is appointed by the Minister for Agriculture. Coillte commenced trading in 1989 when it acquired ownership and management of the Irish State's forests.

Coillte Today

The company is a forestry and forest products business, with interests in renewable energy. The company has three operating divisions - Coillte Forest, who manage all aspects of the forestry business, a Land Solutions business and Medite Smartply, a leading manufacturer of sustainable timber construction panels.

The company employs approximately 800 people across Ireland and the UK. Our business supports and enables a vibrant forestry sector in Ireland which is estimated to provide over 12,000 jobs, mostly in rural Ireland.

The Forest Service (Department of Agriculture, Food and the Marine) is the forest authority in Ireland and regulates the forest industry. The Forest Service is responsible for ensuring the development of forestry within Ireland in a manner and to a scale that maximises its contribution to national socio-economic well-being on a sustainable basis that is compatible with the protection of the environment.

Nature Conservation and Biodiversity

The Coillte estate consists of a varied tapestry of different habitats, ranging from conifer forests and mixed or broadleaved forests, to open bogs and heathlands, to lakes and rivers. Independent ecologists have identified the areas on our estate with the best value for biodiversity. These are then mapped and managed by Coillte as biodiversity areas. Currently, 90,000 hectares of our lands (about 20% of the estate), in more than 2,300 sites, are mapped as biodiversity areas where nature conservation and biodiversity enhancement are the primary management objective. We work with and respect nature across all of our forest lands, identifying, mapping and protecting important features of biodiversity. A list of important wildlife and their habitats and species in this BAU can be found in [Appendix II](#) of this five year forest plan.

Outdoor Recreation

Coillte operate an open forest policy and welcome all visitors to our lands according to the 'Leave no Trace' principals. As Ireland's leading provider of outdoor recreation we have more than 260 forest recreation sites for you to enjoy. For more information on how to get out and enjoy the outdoors and for details of all our recreation sites see <http://www.coillte.ie/our-forests/explore/>

1.2 Renewable Energy

Coillte is committed to the development of renewable energy in Ireland, as we move towards a sustainable future with enhanced energy security. As the largest provider of high quality sites to the renewable energy sector, Coillte is making a significant contribution to Ireland's 2030 target of achieving 70% of its electricity consumption from renewable sources. Coillte is fully aligned with government and EU policy in terms of the role we play in relation to renewable energy development in Ireland.

Ireland's dependence on imported fossil fuel has left energy consumers vulnerable in terms of energy security, energy price volatility and exposure to carbon taxes. Reducing Ireland's reliance on fossil fuel imports, reducing our greenhouse gas emissions and improving domestic fuel security are key pillars for developing a green economy.

Coillte has already made a significant contribution towards the development of renewable energy in Ireland over the last 20 years. Over the course of the five year forest plan period and beyond, Coillte has a very important role to play, both as a developer and a land owner, in helping Ireland reach its 2030 renewable energy targets and in helping reduce Ireland's carbon emissions. Coillte proposes to do this through facilitating the development of multiple renewable energy technologies.

In terms of developing our renewable energy resources we are committed to:

- Open and transparent public participation and consultation in renewable energy projects with stakeholders and local communities.
- Best in class Environmental Impact Assessment and Appropriate Assessment that enhances and preserves local ecology and the habitats therein.
- Complying with all relevant environmental legislation, health and safety legislation, regulations and other requirements as they arise.
- Minimising the impact of wind farm development on the surrounding landscape and surrounding forestry in so far as that is possible through careful siting and design.
- Considering the impact on recreational users, and also the opportunity there may be when developing a wind farm to develop enhanced recreational facilities.
- Mitigating against the risk of pollution and conducting our business in an environmentally friendly way.

1.2.1 Public Participation and Consultation for renewable energy projects

Coillte supports proper planning and sustainable development and fully recognises that the development of renewable energy projects must afford appropriate protection to the social, environmental and economic pillars of sustainability. We are committed to ensuring that people are aware of our plans and policies and that we present all of our information in a clear and understandable manner.

Coillte's policy is to consult widely with national and local stakeholders in all stages of the wind farm development from pre-planning, development and operational phases. In addition, all projects developed by Coillte provide a Community Benefit mechanism as part of the project.

While not currently a statutory requirement of the Irish planning system, Coillte insists that, in all instances where wind turbines are proposed on the Coillte estate, the relevant host community is consulted about that proposal prior to any Planning Application being lodged with the relevant Planning Authority. As part of Coillte's commitment to the responsible stewardship of its forests, it seeks and welcomes comments and suggestions from stakeholders about how it manages its forests in the most responsible way for the benefit of society and future generations.

1.2.2 Wind Energy

Coillte's lands possess some of the best onshore wind regimes in Ireland due, inter alia, to its altitude, aspect and location. It is also often particularly suitable for wind farm development due to its remoteness, accessibility, distance from dwellings and visibility relative to areas with high scenic amenity.

Coillte is aware that wind energy is a proven technology and according to the Irish Wind Energy Association (IWEA), it provided 24% of our Irish electricity demand in 2015. As outlined in the White Paper 'Ireland's Transition to a Low Carbon Energy Future 2015-2030', Coillte too recognises that "*onshore wind will continue to make a significant contribution*"³ to meeting Ireland's energy needs.

Due to the fact that there are many myths concerning wind energy developments, should you require further information regarding Coillte's involvement in the wind energy industry, please do not hesitate to contact us at info@coillte.ie

1.2.3 Biomass

The key guiding principle for Coillte's vision is that Ireland's biomass is a limited and valuable indigenous resource and should be harnessed in a way that maximises value throughout the supply chain. Coillte does so by providing competitive, long term and secure biomass fuel supply contracts for its woodchip clients and also assists in the evaluation of both the technical and commercial viability of projects for large scale industrial energy users. Coillte continues to play a key leadership role in delivering sustainable biomass energy solutions to the Irish biomass industry through its regional processing hub supply model. We operate a number of regional biomass fuel supply hubs throughout the country. Coillte provide full chain of custody from forest to boiler ("stump to steam") and all wood chip is produced strictly in accordance with quality specifications set out in I.S. CEN/TS 14961: 2005, with a significant emphasis on optimisation of wood flow to minimise haulage distances for all transportation required. Coillte processing hub now support a range of supply chain jobs and underpins significant annual energy and carbon savings for its clients. Should you require any further details regarding Coillte's involvement in the biomass industry, please do not hesitate to contact us at biomass@coillte.ie.

1.2.4 Other Renewable Technologies

In addition to playing a leadership role in wind energy and biomass production, Coillte is currently engaged in a process to assess the potential opportunities for solar energy on the Coillte estate. Coillte is also assessing recent technology developments in the area of energy storage. Furthermore, the

³<http://www.dcenr.gov.ie/energy/SiteCollectionDocuments/Energy-Initiatives/Energy%20White%20Paper%20-%20Dec%202015.pdf>

potential for hydro energy may also be considered on the estate along with any other emerging technologies. Work is underway to understand these technologies and their potential application for Coillte, either being integrated into our existing energy projects or developed as standalone projects in the future.

1.3 Coillte's Resource Management Approach

During 2011 and 2012 a major project was undertaken within Coillte Forest to review fundamentally our approach to managing our forest resource. The underlying objective of this work is to use optimisation techniques to ensure we are maximising the return from the land resource in a balanced and sustainable manner. In 2013 this project moved into implementation phase and, after a successful pilot programme, has now been adopted as the primary planning tool for Coillte forest.

The schedule itself is built through running a management model. It is important that the model reflects

- the costs and benefits of all possible actions,
- the crop and site types and the circumstances under which each action is allowed,
- and the relevant management objectives and constraints operating at a strategic and local level

As the model was developed and refined each BAU was consulted on the model as it applies to their area. The outputs of the management model may span multiple years or decades and in this format, will be used as a strategic resource management tool.

A major benefit of the approach to Coillte is the speed with which a new national activity schedule is generated which reflects, for example, the impact of storm or a significant shift in markets. In extreme cases a stand may have its scheduled fell year shifted as frequently as every quarter, as the model is re-run to incorporate emerging information on demand or crop parameters.

This is why forest management principles, objectives and constraints are reflected into the model and form the basis the BAU plan.

Once these principles are agreed, each model run during the lifetime of the BAU Strategic Plan will comply with the principles, as will the ensuing harvest schedule. The harvest activity levels are available to view on our Webmap , these draft activity levels are based on an initial run. Where changes occur due to public feedback or from other influences e.g. environmental or policy, which cause an increase of over 20% in activity within a property these areas will be published on Coillte's website as having changed significantly since initial publication.

1.4 Benefits of Coillte to the public

As the largest provider of timber and timber products in Ireland Coillte enables a vibrant forest sector employing around 12,000 people, mostly in rural Ireland. In addition to these benefits to the economy in terms of sustainable forest products and energy production, Coillte's forests provide a range of social, environmental, recreational, health and tourism benefits to the State and its people.

Coillte provides a wide range of these benefits, sometimes known as 'public goods'. Extensive recreation facilities are provided in Coillte's forests including 12 forest parks and Ireland's best mountain biking facilities. Coillte operates an open access policy for walkers and pedestrian users, and people can apply for licenses and permits to engage in a wide range of other activities.

Coillte’s recreation policies are set out in the company’s website at <http://www.coillte.ie/media/2016/12/Coillte-Recreation-Policy.pdf> and all information about our recreational activities and opportunities can be found at <http://www.coillte.ie/our-forests/explore/>. Approximately 20% of our estate is actively managed for nature conservation. Habitat restoration projects such as Coillte’s EU funded LIFE Projects, and recreation partnerships like the Dublin Mountains Partnership are showcase projects that demonstrate best practice in natural resource management.

1.4.1 Trees, Carbon and Climate Change

In addition to being important resources for construction and for energy production our forests are also important natural systems for capturing and storing carbon from the atmosphere. Carbon dioxide is perhaps the main gas responsible for climate change and trees are key to the battle against it.

As they grow, trees remove carbon dioxide gas from the air. They convert this carbon into wood while at the same time releasing pure oxygen back into the atmosphere. This is incredibly valuable, ensuring forests, with thousands of trees are both an effective carbon store and carbon sink.

The quicker a forest grows, the more carbon it removes from the atmosphere. Conifers grow at a faster rate than other trees, which is why they are perfect for carbon sequestration. Our fastest growing conifers have an average growth rate of 18 cubic metres per year compared to an average of 4 cubic metres for slower growing broadleaf tree. If managed appropriately, commercial forests can have an advantage over natural forests in terms of removing and storing carbon.

Maturing trees in a natural forest can lose as much carbon to the atmosphere through decay as they absorb through growth. A managed forest however will continue to absorb carbon over multiple generations, as trees are harvested at maturity and replaced with new young trees. This maintains a rapid rate of carbon sequestration.

The timber products made from forest wood also lock carbon away, which means that using timber products for construction in place of more conventional materials such as bricks, concrete and steel also leads to further net reduction of carbon emissions.

1.4.2 Coillte Nature

Coillte Nature is the not-for-profit branch of Coillte that is dedicated to the restoration, regeneration and rehabilitation of nature across Ireland. Our mission is to deliver real impact on the climate and biodiversity crises through innovative projects-of-scale across four strategic themes:

- Reforesting our landscapes by planting new native woodlands on un-forested land
- Restoring important biodiversity areas by investing in major habitat improvements
- Regenerating urban forests for the benefit of people and nature
- Rehabilitating ecosystem services by bringing sensitive or degraded lands into better health

For more information visit www.coillte.ie/coillte-nature/

1.5 Meeting external challenges and constraints

Coillte and all of its forests, lands and operations are subject to a number of key external factors. Typically these arise as policies or legislation relating to forestry which drive change and can have a major influence on our future. Understanding and anticipating these factors is vital in order to manage

change proactively rather than responding to it reactively and Coillte work proactively with our key statutory and non-statutory regulators. The following table outlines some of the principal challenges and commitments. The five year forest plans will each contribute to meeting these challenges and constraints.

1.5.1 Statutory and non-Statutory regulation and certification of forestry

	Response
<p>National Forestry Programme 2014-2020 “To develop an internationally competitive and sustainable forest sector that provides a full range of economic, environmental and social benefits to society and which accords with the Forest Europe definition of sustainable forest management .”</p>	<p>In response to the National Forestry Programme: Coillte will set and meet targets for the national timber supply. Coillte will seek to increase the recreational value of some of its forests. Coillte will continue to manage 20% of all its forests exclusively for nature conservation and biodiversity</p>
<p>National Biodiversity Plan Ireland is a signatory to the 1992 Convention on Biological Diversity and is committed to biodiversity protection and enhancement measures in the National Biodiversity Plan.</p>	<p>Coillte is making a meaningful contribution to the National Biodiversity Action Plan through the designation of 20% of its forest estate overall for nature conservation and biodiversity management. Coillte initiated a partnership with the National Biodiversity Data Centre based in Waterford which currently holds more than 85,000 records of different species of animals and plants from Coillte lands.</p>
<p>EC Habitats Directive and EC Birds Directive (92/43/EEC) as transposed into Irish law under the S.I. No. 477 of 2011 EUROPEAN COMMUNITIES (BIRDS AND NATURAL HABITATS) REGULATIONS 2011. The EU Directive on the conservation of natural habitats and of wild fauna and flora provides for the protection of habitats and their species, and where necessary their restoration to favourable conservation status.</p>	<p>Coillte is committed to achieving or maintaining favourable condition of all of the Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Natural Heritage Areas (NHA) on its lands. All forest operations which potentially could impact on such sites are assessed under the criteria outlined as required by the Regulations.</p>

<p>Water Framework Directive (2000/60/EC) The EU Water Framework Directive establishes a framework for the protection of rivers, lakes, coastal and ground waters by requiring States to achieve good ecological status for all waters, ensuring that status does not deteriorate in any waters. The summary timetable and work programme for the production of the second cycle of River Basin Management Plans (RBMPs) 2015-2021 was published in July 2015. In addition a Significant Water Management Issues (SWMI) report will be published and will be open to public consultation until December 2015. This will feed into the draft River Basin Management Plans for 2015-2021 to be published in December 2016. The RBMPs will be open to further public consultation with a view to publish an updated and final version in December 2017.</p>	<p>National Surface and Drinking Water Regulations have been enacted since 2007 to give legal status to the criteria and standards to be used for classifying surface waters in accordance with the ecological objectives approach of the Water Framework Directive. The classification of waters is a key step in the river basin management planning process and is central to the setting of objectives and the development of programmes of measures. Waters classified as ‘high’ or ‘good’ must not be allowed deteriorate. Waters classified as less than good must be restored to at least good status within a prescribed timeframe. The environmental targets or goals and the programmes of measures (POMs) to be included in river basin management plans must therefore reflect these requirements. Coillte has been proactive with the regulatory agencies, such as the Forest Service, Inland Fisheries Ireland, Local Authorities, EPA and NPWS, in deriving POMs to be implemented by the forest sector in avoiding and/or minimising the potential impact of forest activities on water quality. A central tenet of the POMs is the adherence to the Forest Service Code of Best Forest Practice and Guidelines, including all relevant regulations and requirements, and the Forest Standards for Ireland (National, FSC and PEFC). Furthermore, compliance will be assessed by way of independent audits by the Forest Service, the FSC and PEFC.</p>
<p>Sustainable Forest Management (SFM) SFM is the forestry sector’s response to sustainable development. Balancing the economic, environmental and social elements is now the accepted way by which forest management is conducted. Forest certification ensures best forest practice is implemented and provides stakeholders with an opportunity to contribute to the management of forests. Compliance with forest certification standards is assessed annually by independent auditors.</p>	<p>Coillte is fully committed to a policy of sustainable management of all of its forests and forest lands. Coillte applied for FSC certification of its forests in 2000 and were awarded an FSC certificate in 2001. Coillte applied for PEFC certification of its forests in 2013 and were awarded a PEFC certificate in 2014. These external forest management certification schemes endorse Coillte’s policy of sustainable forest management, balancing the social, economic and environmental aspects of forest management.</p>

1.5.2 Pests and Diseases

Coillte also respond to external factors that have a significant impact on its forests. One example is the disease *Phytophthora Ramorum* also known as sudden oak death which has been detected in a number of BAUs. Another is *Chalara fraxina* which is a serious fungal disease of ash trees. This has caused widespread damage to ash populations in continental Europe and was recently detected in a number of privately owned forests.

Coillte liaise closely with the Forest Service with regard to this significant potential threat to our Ash woodlands and will respond immediately to any mitigation measures proposed.

In addition, Coillte carry out forest health surveys of its estate and assist in the monitoring of nationally important forest pests such as *Ips typographus*, the eight-toothed bark beetle, where appropriate.

1.5.3 Societal Expectations

A number of changes in modern society also impact Coillte's management and planning for its forest estate and these include:

- A greater awareness of environmental issues amongst the public leading to a demand for higher standards of environmental protection.
- Coillte has responded to an increased appreciation of landscape and of the place of forests in the landscape by new policies and practices in relation to forest design and by new approaches to felling decisions, in particular looking at alternatives to extensive clear felling where possible.
- A higher demand for access, recreational and tourism facilities in forests and in the types of recreation demanded – Coillte practices an open forest policy where all of its forests are open for walking, and has increased its provision of special trails including improved provision of waymarked ways and looped walks, mountain bike trails and nature trails. Coillte frequently enters into partnerships with local communities, local development and tourism groups, county councils, and with development bodies such as Fáilte Ireland, Waterways Ireland and the Fisheries Boards to achieve such provision.

1.5.4 Illegal Dumping

Due to the vast and rural nature of the Coillte forest estate, illegal dumping has become a major issue for Coillte with sites close to urban centres being particularly prone to this criminal activity.

Illegal dumping in our forests is not just an unpleasant eyesore, it is an environmental hazard and causes serious problems to habitats, species, and human health. It can pollute rivers and drinking water sources, damage biodiversity and is a threat to both the people who live in the area and recreational users. In addition, it poses a health and safety risk to those staff and contractors who are tasked to remove this illegally dumped litter.

In order to deter illegal dumping Coillte install CCTV cameras and signage in illegal dumping hotspots and investigate all reports of dumping on our forest lands. When evidence is found at dumping sites, litter wardens issue fines and pursue prosecutions. Coillte also work closely with local authorities to seek prosecutions against those who are responsible for illegal dumping.

Coillte also participate in a number of community and local authority initiatives. Coillte would ask the public to be vigilant and report any suspected cases of illegal dumping to the authorities.

1.5.5 Forest Fires

Forest fires can have a number of serious impacts for Coillte. These include financial losses as well as having an impact on the wider forest industry by disrupting timber supplies from Coillte to the saw mills. There are significant re-establishment cost following a forest fire. There is also potential health and safety risk to emergency personnel, staff and contractors involved in fire control and to members of the public. In addition, environmental impacts include damage to recreation facilities and endangered species.

It is Coillte's policy to minimise areas damaged by fire with effective prevention and fire control measures. Forest fires can occur through the year but the risk is greatest during dry spells from March

to June when ground vegetation is dormant and dry. Fire Plans are developed for all forest properties including a map showing access routes and assembly points for fire-fighting personnel, equipment and potential sources of water. As part of Coillte's health and safety programme all Coillte personnel and selected volunteers involved in fire-fighting duties must attend a one day Coillte fire training course. The one day course aims to equip everyone with the skills and knowledge required to carry out forest fighting duties in a safe and effective manner. On completion of training they will receive a certificate and a fire grab bag containing personal supplies relevant to firefighting. BAU Team Leaders have the authority to avail of helicopter services based on input from Operations Managers, and in consultation with National Estates Risk Manager, if necessary. Helicopters will be equipped with bambi buckets. A helicopter could be considered for a number of uses:

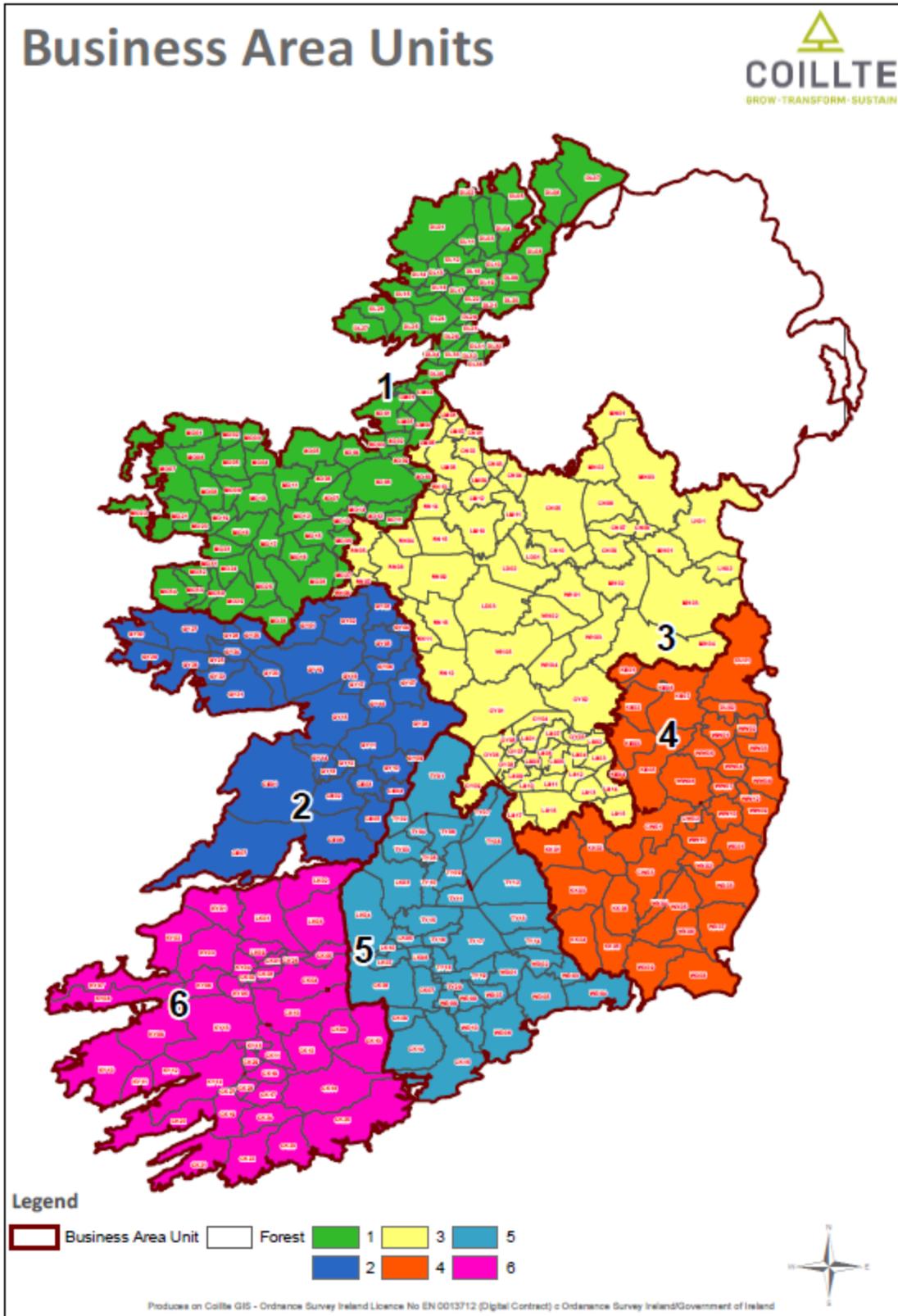
- Surveillance of fire
- Transportation of staff and equipment
- Fire fighting

Coillte would ask for vigilance from the public in relation to Forest fires and action if required by

1. Reporting directly to the emergency services any sightings of a fire
2. Reporting any suspicious activity in relation to fire or any knowledge of attempts to light a fire
3. Not lighting campfires or charcoal barbecue sets on Coillte property.

1.6 Coillte BAUs

Coillte’s estate is divided into 6 Business Area Units (BAUs)



Coillte has developed plans for each of these BAUs, called Five Year Forest Plans which describe Coillte's forests and other assets in the area, and set out a vision for their management. The last planning cycle was for 2016-2020. This plan refers to the incoming planning cycle 2021-2025.

Coillte also convenes annual consultation meetings for each of its BAUs*. Plans are discussed with stakeholders to help Coillte to understand social, recreational and environmental issues as well as opportunities and concerns in each BAU.

*Due to health crisis in 2020, BAU consultation meetings could not be held. This will be reviewed in 2021 in line with government health advice

1.7 Summary on the Various Levels of Coillte Forest Management Planning

The Five Year Forest Plan sets out the economic, social and environmental strategies and priorities for the long and medium term in the BAU and gives a clear direction for the management of the forests at local level for the next 5 years. The plans are developed in consultation with a wide range of stakeholders both internal and external to the company. Input from external stakeholders (individuals, communities, NGOs and statutory bodies) are sought during the consultation process, feedback is considered and where feasible, is incorporated into the plans. The Forest Management Unit (FMU) planning requirement, for Forest Certification, is achieved through the BAU Five Year Forest Plan process.

An Activity Pack is built when site-level planning is initiated for activity within each Harvest Unit and describes how the plan is going to be implemented for the operation managers, workers and contractors. Social and environmental impacts, including consultation, are assessed through the environmental impact appraisal process and mitigation measures are written in each site management plan.

All levels of planning feed into the annual **BAU Work Plan**. These plans focus on the tasks/targets to be achieved during the year and outline the necessary resources (financial and human) required. The BAU is the Forest Management Unit and is built from smaller spatial entities the largest of these being the Forest Unit. Key activity levels within each Forest Unit are further broken down in [Appendix V](#). Further to the appendix, a Webmap is available to view areas with proposed Clearfells and areas which have the potential to be thinned in the review period. [Click here](#) to access the Webmap.

2. South West Munster BAU

2.1 The South West Munster BAU

All BAUs play important roles in achieving Coillte targets and objectives. The South West Munster BAU of Coillte Forest encompasses Counties Kerry, North, South and West Cork, and North West Limerick. The BAU covers 1,192,113 hectares of Ireland. Within this area, Coillte owns 64,594 hectares (5.41%) of which just over three-quarters is forested with the remainder mostly moorland, mountains, marsh and lakes.

There are two Gaeltacht areas within the BAU, Gaeltacht Muscraí and Gaeltacht Uíbh Ráthach. This BAU boasts the greatest concentration of mountains in any of Coillte's 6 BAU's, including Carrantuohill, Irelands highest mountain in the MacGillycuddy's Reeks, Stacks Mountains Range, Mullaghareirks, Nagles Mountains, Caha Mountains.

The climate for forestry operations is challenging, with high rainfall, rugged rocky landscape and some very wet ground conditions. The area normally experiences relatively mild winters and it has many days of wind.

One of the biggest constraints to commercial forestry in the BAU is crop stability with some areas predisposed to windblow. We have seen some major storms in recent years, i.e. in 1974, 1987, and in 1997 over 250,000 m³ of timber was blow in Southern Ireland and in 2014 over 1.5million m³ of timber was blow during Storm Darwin and Storm Ophelia in 2017.

Main population centres in the area include Limerick, Newcastle West, Abbeyfeale, Listowel, Tralee, Killarney, Kenmare, Macroom, Bantry, Skibbereen, Cork, Bandon, Mallow and Charleville. The proximity of some of our forests to Cork City and other major urban centres coupled with a large section of coastline and resulting maritime conditions, affect the management of our forests and influence decision making.

2.2 Forests and Forest Products in the South West Munster BAU

A map of Coillte's Forests in the South West Munster BAU can be viewed in [Appendix VI](#)

The Business Area Unit is the primary business unit within Coillte Forest, therefore, all revenue earned (and associated cost) by Coillte Forest is generated from the resource within the BAU through the activities undertaken on that resource. The primary revenue source within this BAU is from the sale of timber within the BAU, a secondary revenue source is generated through grants, lettings, licences, leisure other activities and alternative land use developments. The most significant costs within the BAU relate to accessing and bringing timber to market and subsequently replanting any land which has been clearfelled. The business environment in which the BAU operates is becoming increasingly more competitive and a number of efficiency programmes are in place to reduce the cost base and optimise the use of new technologies to maintain and in time improve the financial return in the BAU.

During the the 2016-2020 period, the BAU produced approximately 2.05 million cubic metres of wood. Timber produced within the BAU during the period 2016-2020 was primarily sold to Medite, SmartPly, GP Wood Wood (SFE - Graingers Sawmill, Enniskeane and Palfab Sawmill, Lissarda) Glennon Brothers Timber Ltd Sawmill Fermoy, Spellmans, Killarney and stake wood to Adhmaid Cill Na Martra Teoranta and to John Galvin Sawmills, Coppeen. There is also a large number of local firewood customers that the BAU support. The BAU also supplies wood chips to Astellas in Killorglin.

Farm Partnerships

This scheme is where Coillte and a farmer form a joint venture by agreement whereby Coillte planted and now manages the plantation for the life of the crop; ownership of the land remains with the farmer. Currently we have 71 farm partnerships within the BAU. This number is not expected to increase in the lifetime of this plan, as we are no longer engaged in this area. We will continue to support our existing partners.

2.3 Community, Recreation and Tourism Facilities in The South West Munster BAU

Coillte has a long association with the communities, clubs and individuals who use the extensive forest network. The development of recreational facilities and activities in line with Coillte's Recreation policy are some of the many ways Coillte can contribute towards the "public good" value of the estate. This can be achieved through partnerships, permits and ongoing relationships that respects the sustainable use of our forests for future generations. The South West Munster BAU recreational activities complement the lakes and mountains within its boundaries and contribute to the social and economic life of Cork, Limerick and Kerry.

A number of recreational facilities are the result of a joint initiative between Coillte and local communities. Examples of this collaborative effort are developments such as:

- **Glanteenassig Wood** - originally managed for timber production, but which in recent years, has provided recreation for the adjoining town of Castlegregory and for the wider community. During the period, from the mid 2000's the woodland was managed for the purpose of developing amenity woodland – felling and restocking with more diverse species and the addition of a 2km board walk along with other walks.
- The development and enhancement works to the walks and trails in **Foynes**, most of which have views of the magnificent Shannon. The flagship of these improvements is the trail which links the town by means of a 1.2 km woodland walk through the Coillte estate.
- **Curragh Chase Forest Park** - consists of some 313 hectares of mainly broadleaf and mixed woodland with some mature conifer stands, parkland and with some of the area under water. The estate was maintained and operated by the Department of Forestry and Wildlife up until 1989 when it passed on to Coillte. Curragh Chase House was the home of the De Vere family for almost three hundred years dating from 1657. This partnership with Coillte, Fáilte Ireland and Limerick County Council, included a very comprehensive development that took place during the latter part of 2007 and in 2008 with the upgrading of the present trails and the addition of new trails and facilities. In 2020 we have also upgraded the playground.
- **Guagán Barra Forest Park** – originally managed for timber production - Guagán Barra Forest Park was the first Forest Park opened in Ireland in 1966. A very comprehensive development took place during 2007 and 2008 with the upgrading of the present trails and the addition of new trails and facilities in conjunction with Fáilte Ireland and the Forest Service Neighbourhood Scheme and was re-launched in October 2008 by Mr. Eamon Ó Cuív TD, Minister for Community, Rural and Gaeltacht Affairs.
- The Neighbourhood Scheme was also utilised in developing walking trails in **Rathbarry** and also more recently a new trail was developed to improve the safety along a section of the walkway.
- A walking trail was developed in **Carrigfadda** in conjunction with Fáilte Ireland, Local Reenascreena Community and Cork County Council.

- **Dromillihy** – was upgraded in 2012/2013 with funds from the Neighbourhood Scheme, a national scheme administered by the Forest Service and the Community Fund administered by Cork County Council and funds from the Gwendoline Harold Barry Trust. This amenity project was carried out in partnership with Connonagh Community group.
- **Glanageenty** - The Glanageenty Valley walkway consists of 4 miles through woodlands steeped in mystery and folklore, a place where even amid the peacefulness and silence you can still sense the nostalgia of days gone by. It consists of an old butterroad, a holy well and the site of an old Desmond Castle plus numerous monuments and signs telling of the history of the people of "the Glen", this site is developed in partnership with North East Kerry Development.
- **Lyreacrumpane River Walk** - The Mass Path or River trail as it is also known was used in Penal times by local followers going to mass. The path runs alongside the Smearla River and extends from Lyreacrumpane Community Centre towards Castleisland. It passes the local Church and access is provided to the Church via an old foot bridge. The trail leads onto the main Listowel to Castleisland road at Carrigcannon. The trail was upgraded in 2019 with further works carried out in 2020.
- **Lickeen** - There are three looped waymarked trails to help you explore the wood. Castle Rock Loop will guide you through the forest, climbing to about 90m before you descend into an atmospheric ravine before continuing back on forest roads to the trailhead. Lickeen Loop takes in the landmark of Blackstones Bridge before leading you along a trail adjacent to the Caragh River before looping back via the Wood. The Kerry LIFE Loop is the wider loop that incorporates the best bits of the above. The EU LIFE Project LIFE13 NAT/IE/000144 – LIFE Kerry – Sustainable land use management for the conservation of the freshwater pearl mussel is on-going in this area.

Many Coillte forests in this BAU are expansive and offer multiple activities such as walking, hiking, multi access and long distance trails cycling on new bike trails, fishing, picnicking, watching wildlife, canoeing, field archaeology or simple enjoyment of the outdoors. **Farran Forest Park** is an example of a small Park that has a lot to offer in terms of activities and features. Facilities on site include aerial trails (Zip-it), playground, toilets, car park, picnic sites, deer enclosure. It has a diverse mixture of tree and shrub species that make it attractive all year round for visiting. It's location on the southern shore of Inniscarra lake offer fantastic views of the reservoir and the many rowers at every level who train here, from amateur to Olympian. The lake or reservoir was created in the mid-1950's by flooding agricultural lands to store water for the nearby Inniscarra hydroelectric generating station.

This BAU has a number of designated areas for recreational activity, and these are detailed on the Coillte website <http://www.coillte.ie/our-forests/attractions/> and are also listed in 'Discovering Ireland's Woodlands' (Coillte) booklet under counties Cork, Limerick and Kerry. See [Appendix III](#) for a table describing the recreational values of the BAUs sites.

There are also a number of Waymarked Ways passing through Coillte property in the BAU. These include:- The Dingle Way, The Kerry Way, The Beara Breifne Way, Sheep's Head Way and Duhallow Way.

Coillte have been at the forefront in developing Ireland's first off-road cycle trails over recent years. These trails have been very successful and we receive numerous requests for new trail development

around the country. Coillte has just completed the development of an off-road cycling strategy to examine the best potential locations for future trail development.

We seek to provide high quality, authentic and safe experiences for all our visitors. One of the key issues for providing for safe cycling on the estate, is the development of sustainable trails and this requires a strategic approach to a national, regional and local trail offering. We have and are working closely with key partners in this strategic work, including Cycling Ireland, Fáilte Ireland, the National Trails Office and the Dept. of Environment, Community and Local Government. Further queries can be directed to info@coillte.ie

2.4 Cultural and Archaeological Heritage in the South West Munster BAU

Coillte is aware of some 328 archaeological sites and sites of cultural significance in its landholdings in the South West Munster BAU. These monuments include megalithic tombs of different kinds, ring forts, standing stones, Hut Sites and other enclosures. A summary of archaeological sites in the BAU is provided in [Appendix I](#)

With support and advice from the NPWS, Coillte has developed a Code of Practice in order to protect this archaeological and cultural heritage.

Many land acquisitions contain farmsteads and features representing rural life in the 19th and early 20th century. These are identified and protected within forest management practices and identified when proposals for sales are being developed. They are evaluated in terms of their social and historical value and a plan implemented for their preservation.

The BAU will continue to support sites of cultural and literary heritage such as that at Curragh Chase House, Castlefreke, Killochloane Mass Rock, charcoal pit at Shippool Wood, the famous ‘Kerryman’s Table’ located on the famed Kerry to Cork ‘butter road’ and a summer house located at Currabinny Wood. Coillte will also continue to identify, protect and record all new items of heritage which are discovered on its lands. These sites provide valuable information about our history and represent an important educational and recreational resource.

The BAU supports local initiatives such as the Sprigging School in Rathbarry in association with the tidy towns committee.

A limekiln close to Union Hall within the forest property of Bawnlahan has been restored by the local historical society.

An old peat factory is currently in the process of being restored in Kimego near Caherciveen in association with Kerry County Council.

2.5 Biodiversity and High Conservation Value Forests (HCVF) within South West Munster BAU

Habitats and features of biodiversity value on the Coillte estate are protected during forest operations.

The table below shows that approximately 12,729 ha of Coillte land in the South West BAU is protected during operations or enhanced to increase its biodiversity value. This equates to approximately 20% of all Coillte land in the BAU.

Areas protected or managed for biodiversity are spread across the BAU area and vary widely, both in terms of their size and in terms of the habitat type present.

Broadly, there are three main types of site protected for biodiversity: Biodiversity Areas, Biodiversity Features and Riparian Buffers. Biodiversity Features and Riparian Buffers can occur anywhere on the estate, including within Biodiversity Areas, so there is some overlap between these three categories.

		Area (ha)
Biodiversity Areas	Habitats that have particular value for nature or biodiversity.	10,152
Biodiversity Features	Small features (usually <2ha) that add biodiversity value to the forest stand, protected during forest operations	994
Riparian Buffer Strips	Strips of land that adjoin streams, rivers and lakes, and are managed for their protection.	2,528

(*Overlap occurs between categories)

Biodiversity Areas

Biodiversity areas are essentially habitats of nature conservation value that occur on the Coillte estate. They vary widely in terms of the habitat type present and in terms of their ecological value.

Coillte began the process of identifying and mapping habitats of nature conservation value on the estate in 2000. During 2001-2005, freelance ecologists were commissioned to complete this work.

During 2014/15, Coillte developed a procedure called BioClass, which is used for classifying biodiversity areas according to their habitat type and overall ecological value. The BioClass procedure is based on national research on biodiversity in Irish forests. Freelance ecologists were once again commissioned to review all biodiversity areas across the estate and apply the BioClass procedure. The benefits of BioClass are that the biodiversity information is summarised and provided to Coillte staff in a more accessible manner.

Approximately half of Coillte's biodiversity areas are forest habitats: native forests, broadleaves forests, mixed conifer-broadleaves and conifer forests.

And half are open habitats: mostly bogs and heaths, with some specialised habitats such as limestone pavement and coastal habitats.

Some biodiversity areas have very high ecological value and are significant at national or international level, while others are of moderate value and are significant at a more local level.

Each year, the sites of highest biodiversity value are targeted for monitoring and management activities. These sites are identified on a rolling programme each year.

Biodiversity Features

Biodiversity features are small features that have value for biodiversity. They occur across the whole estate and are protected wherever they occur.

The types of biodiversity features that occur on Coillte sites include: small pockets of open habitat within the forest (usually heath, bog or small wetland); small stands of scrub (broadleaved scrub or open stands of poorly-grown conifers); locations of particular species of flora and fauna; veteran trees

or deadwood.

Coillte staff and contractors continue to find, record and protect biodiversity features on operations sites.

Riparian Buffer Strips

Riparian buffer strips are portions of Coillte sites that run alongside watercourses (rivers, streams or lakes). In all forest operations, the standard width of buffer strips is 10-15m. This width may be increased on certain site types. The creation and management of riparian buffer strips is described in guidance documents produced by the Forest Service of the Department of Agriculture, Food and the Marine.

The purpose of buffer strips is to protect watercourses from any damage that may arise during forest operations. Conifer trees that were planted in riparian buffer strips in the long-distant past (when forestry policy was very different to today) are removed and the strip is either left open to revegetate naturally. Sometimes, clumps of native broadleaves are manually planted in the buffer strip.

Over time, the buffer strips develop into open habitat or scrub alongside the watercourse or lake, and have considerable wildlife value. As with the biodiversity features, the area of riparian buffers increases over time, as more are mapped on operations sites and converted to open habitat and/or scrub.

2.6 High Conservation Value Forests (HCVF) within the South West BAU

Coillte's certification process requires that we identify areas of high conservation value forests (HCVF) across the forest estate. High conservation value forests (HCVF) are areas, not necessarily under forest, that are nationally important for nature conservation and have recognised conservation values associated with them. Two high conservation values have been identified for Coillte forest lands, namely:

1. Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values;
2. forest areas that are in or contain rare, threatened or endangered ecosystems.

In Ireland, HCVF is defined as sites that have a statutory designation for nature conservation, either nationally under the Wildlife Act as Natural Heritage Areas (NHA) or under European Law (Habitats Directive) as Special Areas of Conservation (SAC) or Special Protection Areas for birds (SPA). Some old woodland sites in the BAU have the potential to be classified as HCVF and these sites are identified through Coillte's old woodland assessment procedure.

HCVF areas may be quite large, such as Special Protection Areas in the west of Ireland for hen harrier conservation, or they may be quite small such as an old house within a forest which hosts an important roosting site for bats. They may also occur on non-forested lands such as the atlantic blanket bogs in the west and the raised bogs of the midlands.

All management operations in HCVF areas are designed to maintain and/or enhance the designated conservation value and operations are further managed using the precautionary principle.

The table below shows statutory designated areas and HCVF in the South West BAU. Areas shown are in hectares (Ha).

Designation	Area (ha) on Coillte lands
HCVF	23,835
NHA* – Natural Heritage Area	288
SAC* - Special Area of Conservation	4209
SPA* – Special Protection Area	19,302
Nature Reserve	427
pNHA	2880

(Overlap occurs between categories)

Coillte recognises that woodland sites have the potential to be high conservation value forests. These are Old Woodland Sites (OWS) with the best semi-natural characteristics, or that support nationally important populations of rare, threatened or endangered species. Coillte policy is to assess and survey all OWS in advance of clear felling or high impact operations. Any site identified as having a ‘high score’ is brought to the attention of the company’s ecologists and their advice acted upon.

The South West Munster BAU achievements in relation to nature conservation include the following:

- Approximately 2,136 hectares of Old Woodland sites in the BAU and a number of these are being managed as OWS to retain their semi-natural characteristics;
- One Alluvial woodland site has been restored;
- Habitats regulation assessments take place in relation to all works on designated sites.
- 7 hectares of Yew woodland at Curragh Chase Forest Park restored under EU LIFE project;
- One People’s Millennium Forest, Rossacroo with 15 hectares planted with native species.

2.7 Species and Habitats in The South West Munster BAU

The BAU contains many special habitats including excellent oak/birch/holly woodlands, mixed broadleaf woodlands, raised bog, and blanket bog. Notable animals in the BAU include the Nightjar, Little Egret, Pine Marten, Red Squirrel, Fresh Water Pearl Mussel, Hen Harrier, Otter, Badger, the Lesser Horseshoe Bat and White tailed Sea Eagle.

The BAU aims to maintain and where possible enhance the habitats of these species. Management plans have been drawn up for agreed biodiversity areas which will ensure that forest operations will not interfere with the habitat of these species where they exist on Coillte land. The Biodiversity Action Plans, produced by Coillte, for the hen harrier and the freshwater pearl mussel will continue to be drawn upon. Close communication will be maintained with the NPWS on all matters relating to all of the above species.

Detailed tables have been provided in Appendix II showing examples of our approach to the management of areas designated for biodiversity under each of the more important habitat types identified during the ecological surveys and also showing notable species of flora and fauna. The forest management plans for each forest contain details on the entire list of biodiversity areas involved.

2.8 Invasive Species in The South West Munster BAU

Within the BAU there are a number of species that are not native to Ireland and which are capable of having a negative effect on native biodiversity. Most notable from a Coillte point of view are

Rhododendron which is a significant issue on our properties. Other invasive species found in the BAU include giant hogweed, laurel and Japanese knotweed. Work has been carried out to help eliminate these species.

In line with international best practice, when controlling invasive species (including Rhododendron), the BAUs resources are focused on priority sites based on:

1. The site's uniqueness (e.g. whether or not they are Priority habitats, as per EU Habitats directive);
2. Whether the presence of Rhododendron is likely to facilitate the spread of the exotic disease *Phytophthora ramorum*;
3. The site's intrinsic ecological/biodiversity value (e.g. are they High Conservation Value Forests or Old Woodland Sites);
4. The social value of the forest (e.g. the extent to which the forest is used as a recreational facility/proximity to urban population).

2.9 Water Quality and Protection in The South West Munster BAU

In terms of water, the BAU is dominated by the South Western River Basin and the Shannon International River Basin. The main rivers include The Kerry Blackwater, The Lee, The Bandon, Blackwater (Munster) Laune, Feale and Shannon. The rivers and lakes of the area support important salmon and trout fisheries and this is also important to the local economy. There are also associated freshwater pearl mussel populations. There are number of Fresh Water Pearl Mussel (*Margaritifera margaritifera*) (FPM) catchments within the BAU including Carragh, Cumberagh, Kerry/Blackwater, Ownagappul.

Coillte abides by all Forest Service Guidelines, Regulations and Requirements in regard to protecting water quality, and in particular the Forest Service Guidelines on Water Quality, which detail sound and practical measures for handling forest operations in proximity to waterways. As the largest landowner in counties Kerry, Cork and Limerick Coillte has a responsibility to ensure that it's actions do not negatively impact on water quality. Within the BAU the following are the most significant issues relating to water:

- Water abstraction for domestic use
- Presence of the rare fresh water pearl mussel species
- Presence of important salmonoid rivers, such as the Laune, Feale and Munster Blackwater.

When planning forest operations all the issues listed above are considered. During this process, Coillte will liaise with a wide range of environmental regulators, including the Forest Service, Inland Fisheries Ireland, Shannon and South Eastern River Basin Districts, NPWS and local authorities, particularly with regard to the potential impact of forest operations in proximity to environmentally sensitive waterways.

Coillte actively plays its part in protecting the water bodies water quality. Prior to the commencement of all high impact forest operations, an environmental risk assessment (ERA) is conducted whereby all important aquatic zones (as defined by the Forest Service Guidelines) and permanent relevant watercourses draining the proposed operations area are noted and mitigation measures listed to ensure protection of the waters. It is at this stage, the requirement for the establishment of water protection areas (buffer zones), if not already in-situ, will be stipulated for all watercourses. Reference will be made on how the trees are to be removed and prohibition of machinery movement in the buffer zones during forest operations.

If the proposed 'high impact' forest operations site is judged to be water sensitive, a water

monitoring programme will be put in place. This will comprise of daily visual assessment and recording of surface waters draining the site during operations and the immediate adoption of appropriate contingency measures where discolouration of the water is observed. On the most sensitive sites, this monitoring process is backed up with short-term water sampling. Typically, this sampling would be of short to mid duration, lasting a few weeks to several months, depending on the duration of the forest operation. Sampling consists of taking samples from the main tributaries draining the forest site, before, during and after operations are completed.

The adherence to the EU Water Framework and Habitats Directives, has significant implications for forest management in the BAU. It highlights the potential pressures of forests on water quality and increased risks from erosion and sedimentation. The need to move away from monoculture blocks of forests towards restructured forest stands has been recognised in the BAU. When restocking after clear felling, an extensive network of new buffer zones will be established to protect adjoining watercourses. Drainage and cultivation practices on these sites are also designed to minimise their impact on local water. Coillte will continue to work closely with the relevant statutory bodies and assist where possible with their water and fishery rehabilitation plans

2.10 Forest Management Issues in The South West Munster BAU

Coillte's South West Munster BAU faces a number of issues in relation to managing its forests effectively for production and for their recreational and social benefits. Over the past 5 years these have included: estate security, trespass, litter, waste dumping, deer poaching, fire, illegal use by motorised vehicles both two and four wheeled, inappropriate recreation and anti-social behaviour.

Security; Coillte has a security plan in place which the BAU implements to help minimize the risk of losses through theft, vandalism and crop damage.

Litter and waste dumping; Illegal dumping is unsightly and unnecessary, causing serious problems to habitats, species, and human health. It pollutes our water courses, damages soil nutrients, encroaches on habitat space, kills insects and animals, and is a threat to both the people who live in the area and recreational users. It also has a negative economic impact on tourism and discourages both tour companies and tourists in visiting certain areas. This is an ongoing issue both in rural areas and areas close to urban centres. The majority of it is domestic waste. Coillte works closely with local authorities and groups to help clean this up.

Illegal use by motorized vehicles, inappropriate recreation and anti-social behaviour; Coillte through the security plan utilize the most appropriate methods of security including the erection of cameras to help reduce the problem but also to bring about prosecutions.

Deer poaching; This can be problematic in certain areas and Coillte work closely with the NPWS and An Garda Siochana to help minimize the extent of the problem.

Coillte implemented by-laws for access to and use of Coillte managed lands. Recreation sites where there are ongoing issues such as illegal access on motorized vehicles, dumping, anti-social behaviour etc. are prioritised for installation of the relevant signage. These bye-laws may be enforced by the Garda Siochana and offences may be liable to a fine and/or imprisonment.

2.10.1 Deer Management in The South West Munster BAU

Wild deer on Coillte's estate managed in accordance with accepted principles of Sustainable Deer Management (SDM) whereby, the conservation, control and use of the species will be balanced in order to achieve an integrated and collaborative solution to achieving viable deer populations across the Coillte estate at levels which are in harmony with their environment. To this end Coillte maintain Deer Management Plans (DMP) for all areas where deer are present. Coillte's summary deer management policy can be viewed here [Deer Management Policy](#).

Wild deer are present on over 60% of the Coillte estate. Through browsing and bark-stripping trees, deer can have a considerable negative impact on any tree crop and on tree species selection as well as the quality, yield and survival of forest crops. Deer can also impact land use objectives on neighbouring lands and can be a major health and safety hazard, particularly on public roads.

Deer are wild animals free to roam across large areas of multiple land ownerships. They are a protected species, and one which attracts considerable attention and differing views as to how they should be managed. A key aspect of successful deer management is establishing a collaborative approach between all key stakeholders within the deer's range at landscape level. A considerable element of this process is the acceptance of shared responsibility by all landowners in the area of their role to ensure the effective management of the deer utilising their lands.

Coillte have demonstrated considerable commitment and leadership in recent years in developing collaborative deer management and the establishment of training standards for deer hunters. At National level the company was instrumental in the establishment of the Hunter Competence Assessment programme and the Irish Deer Management Forum (a group which has been disbanded since the retirement of its Chairperson and which Coillte wish to re-instate). At Regional and local level Coillte are active participants in a number of deer management partnerships and groups.

The impacts to Coillte's crops are generally localised, predominately in areas with high deer density. A breakdown of deer species abundance has been gathered countrywide coupled with damage inflicted on crops. Damage is mainly confined to the browsing of broadleaved trees and some more palatable conifers such as Scots pine, Douglas fir, larch and Norway spruce. Deer populations are principally controlled through the issue of hunting licences.

Deer management in Coillte is coordinated nationally through a new deer oversight group which was established in 2020. This group is comprised of staff from Estates, Operations, Public Relations and Recreation.

Coillte's summary deer management policy can be viewed here [Deer Management Policy](#). As part of planned work for 2021, Coillte's Deer Oversight Group will review and update our current deer management policy and all supporting documentation

3. The South West Munster BAU Strategic Plan

We are very fortunate in the BAU in the richness and pristine quality of much of our environment, our wild natural resources and the presence of habitats and landscapes that are cherished both at home and internationally. We aim to maintain and enhance these assets while balancing the requirement to realise for the state and its people the enormous investment that has been made in Irish forestry over the years.

3.1 Vision

The long-term vision for the BAU is of forestry management at an intensity that is appropriate to the environmental sensitivity and productivity of its land resource. By adopting policies that ensure our efforts are concentrated on timber production in some areas and on habitat restoration in other areas we will maximise the benefits to the environment, local communities and the timber processing industry.

This vision includes:

- forestry will be a vibrant industry in the area, integrated into the local economy, providing employment opportunities in the forest, the timber industry and in many downstream activities;
- a diverse range of species;
- natural and semi-natural habitats are protected and enhanced through appropriate management;
- there is continuity of forest habitat for rare and threatened species;
- the public will gain health and well-being benefits from enjoying a range of recreation activities in the forests.
- forest recreational sites will be a part of the tourism infrastructure and will be an important contributor to the tourism economy;
- there will be a shared vision between the BAU and local communities on expectations from the forests and how they are managed.
- Provide renewable energy in forms such as providing fibre for Biomass

3.2 The Forest Resource and the Timber Business

Coillte realises its timber sales through planting and felling on its own estates.

The Coillte Estate

It is Coillte's policy to achieve the maximum volume potential of the estate consistent with sustainable forest management principles (see Section 4).

Key Objective 1

In The South West Munster BAU, Coillte aims to produce approximately 2,038,584 cubic metres of wood from its forests between 2021 and 2025. 1,782,467 m³ of this will be provided through felling and 256,117 m³ will be achieved through thinning.

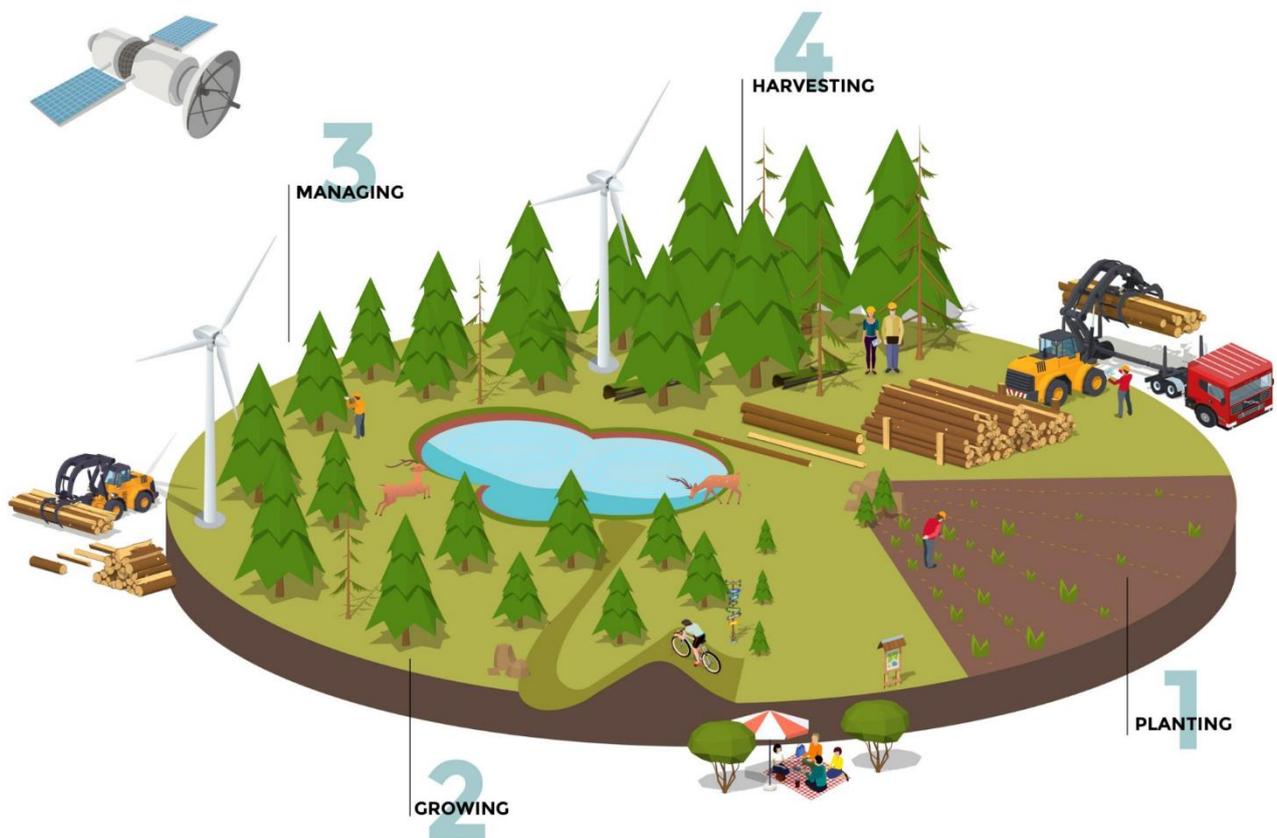


Figure 1: The Forest Cycle

Timber supply comes from two main sources, clear felling and thinning.

- **Clearfell** is the most common silvicultural system used in Ireland and the UK due to the prevailing forest culture and has predominated over the past century characterized by the establishment of new forest plantations. The extent of clear felling annually is strictly controlled both externally and internally. Externally, the extent of annual clear felling is subject to statutory control by the Forest Service. Internally, control is exercised by the Coillte policy of ‘Sustained Yield’. Sustained yield allows our forests to grow and be harvested at a level that is capable of providing a continuous supply of timber for current and future generations.

Coillte has introduced a number of Low Impact Silvicultural Systems (LISS) which will apply to some forests in the area. The clear fell system will, however, remain the dominant silvicultural system in the BAU during the plan period. This involves the removal of all marketable trees from an area at the end of the rotation (usually at between 35 to 45 years of age). Due to the poor fertility and the exposed and unstable nature of our sites there is very little scope for alternative systems that remove mature trees more gradually. At clearfell time considerable effort is now put into adjusting felling coupe size and shape to satisfy both environmental and landscape design purposes. Low Impact Silvicultural Systems (LISS) such as ‘Small Coupe Felling’, ‘Change to Broadleaf’ and ‘Continuous Cover Forestry’ are in use in the BAU and it is intended to expand this level where possible during the plan period.

- **Thinning** is also a natural part of forest management and it involves staged removals of a proportion of trees in a forest over a rotation, and it is a necessary part of standard forestry practice worldwide. Thinning improves the quality of the forest by regulating the space and light provided to trees as they grow. In line with international best practices, Coillte aims to thin where possible all forests to maximise the quality and volume returns from the estate. Thinning will only occur where the practice can be sustained, namely in forests with no stability threat from high winds. High winds and exposure in the BAU is a limiting factor to thinning and consequently thinning is effectively concentrated in certain areas of the BAU where it is not as exposed and deemed to be more stable. Historically, because of stability concerns, there is limited standard thinning prescriptions used in this BAU with most thinning events having 2 or 3 interventions. The experience in the BAU to date is that thinning interventions of 3 or more often result in wind blow and are therefore not recommended in certain areas of the BAU.

All felling is controlled by the Forest Service which issues felling licences as appropriate under the Revised 2014 Forestry Act. Coillte will ensure that all harvesting operations meet Forest Service license requirements and are planned at site level, with full assessment of environmental impact, landscape sensitivity, local consultation requirements and relevant site issues.

All felling proposals for either clear felling or thinning will be consulted on in advance with local authorities, Inland Fisheries Ireland and also the National Parks and Wildlife Service; their recommendations are then fully considered. BAU outlines a list, maintained on the Coillte website, of the clearfell and regeneration plans for the following year and notifies stakeholders annually.

In addition, Coillte provides a [Webmap](#) which is accessible by the public from the Coillte website which shows indicative forest areas where harvesting will occur during the five year plan.

New Planting and Replanting

Under the terms of felling licences, Coillte will fulfil its obligations to replant clearfell areas.

Key Objective 2

In The South West Munster BAU, Coillte aims to replant approximately 7,140 ha by 2025.

Forest Roads

Forest Roads are an essential element of forest infrastructure. They provide access for management, harvesting and transport of timber and enhance the recreational potential of forests. A number of kilometres of new road are constructed each year in The South West Munster BAU and there is also the need for maintenance of the existing road network. Our policy is to give each local authority a schedule of areas for harvesting and associated timber volumes, for the next five years and agree designated timber haulage routes with them. Our engineering staff has indicated the optimum layout of our road network and we are gradually extending the roads to this point. This work is ongoing and will not be complete within the timeframe of this plan.

The priority for the road infrastructure over the duration of this plan is to:

- Construct between 45km to 50km of new roads where necessary in our forests;
- maintain the existing road infrastructure;

- extend spur roads where necessary to access timber stands due for harvesting in the period of the plan;
- develop road access to areas that are currently inaccessible.

Key Objective 3

In The South West Munster BAU, Coillte aims to construct approximately 50 km of new forest roads by 2025.

Factors affecting timber supply

A number of considerations affect the volume of timber that Coillte can achieve from its forests:

- **Accessing timber crops** can be challenging with both internal (right-of-way issues, poor internal access) and external (right-of-way issues, the state and nature of county council roads/bridges etc.). To address the access issue a list of all difficult areas is currently compiled and these will be prioritised on the basis of timber supply and a plan put in place to address these issues by assigning relevant personnel. The BAU will consider the use of partnerships to help resolve/contribute to access difficulties on a site by site basis. In addition, a review of the road infrastructure will occur and all new haulage routes will be identified in conjunction with Kerry Cork and Limerick Co Councils with a view to improving access.
- **Nutrient deficiencies** Most of the Iveragh Peninsula has been designated acid sensitive. This could have far reaching effects on coniferous forests into the future in this area. Improving the productivity of the forest estate is a strategic goal for Coillte and is also identified in the Forest Service Code of Best Forest Practice. Productivity can be improved through fertilizer application to support sites to reach their full potential growth yield. Fertilizer may be applied manually but for large areas fertilizer application by helicopter can be considered. Aerial fertilization in this manner is only permitted under licence by the Forest Service and after strict nutrient composition and environmental assessments have been completed. The Forest Service will facilitate aerial fertilization to occur where it is deemed silviculturally appropriate to do so and where no undue threat to the environment will occur.
- **Meeting increasingly challenging environmental standards** requires Coillte to review its practices and assess the risks on a regular basis. Coillte has achieved sustainable forest management certification and is committed to ensure that there is continual professional development and refresher training for all staff, personnel and contractors to ensure a high environmental awareness and work standard is maintained. This will incorporate a wide range of training days and courses on all environmental issues and continued co-operation with all statutory stakeholders.
- Restrictions on carrying out operations in **Hen Harrier** areas during nesting season and in **Fresh Water Pearl Mussel** areas in winter and wet months
- The provision of a **harvesting infrastructure** that can respond to the environmental challenges will require ongoing training and monitoring of contractors and engaging in all relevant updates on developments in harvesting technology and machine capabilities. This is seen as a central requirement for all contractors wishing to operate in The South West Munster BAU.
- Sometimes the **popularity of forests for recreation** affects our capacity to fell timber.

- **Farm Partnerships**

In relation to existing farm partnerships Coillte will:

- develop 10 year plans for farm partnerships that have been in existence for 10 years
- hold annual management meetings with farm partners
- thin farm partnership sites regularly and on time(ensuring all regulatory processes are adhered to)
- carry out an inventory on farm partnership sites
- Construct roads for timber extraction where needed (allowing for completion of road grant application process)

Key Objective 4

In The South West Munster BAU, Coillte aims to manage its folio of 71 Farm Partnerships.

Overall production targets in The South West Munster BAU 2021- 2025

Coillte’s proposed operating targets for The South West Munster BAU for the period of the plan- 2021-2025 are summarised in the following table.

South West Munster BAU main Coillte production targets 2021 – 2025

Annual Totals					
Year	2021	2022	2023	2024	2025
Establishment					
Planting (ha)					
Regeneration planting (r/f) (Replanting after felling)	1,450	1,500	1,450	1,370	1,370
Total Planting	1,450	1,500	1,450	1,370	1,370
Harvesting Programme					
Harvest categories (000m3)					
Thinnings	49	52	52	52	52
Regeneration felling (P,C,W) felling	385	372	340	341	345
Total	434	424	392	393	397
Felling area (ha)	820	809	757	757	750
Roading Programme					
Roading (km)					
New	20	13	12	12	9
Upgrading	29	28	27	25	24
Total	49	41	39	37	33

3.3 Coillte's Non-timber Businesses in South West Munster BAU

3.3.1 Renewable Energy Projects

Coillte is developing renewable energy projects both on its own, in conjunction with co-development partners and with third party developers who require land rights from Coillte in order to facilitate developments. In working to realise the potential of its estate for renewable energy development, Coillte carefully considers the social, economic and environmental impact a project may have on the surrounding area.

Coillte has been exploring a range of partnerships and/or joint venture models in relation to its future renewable energy ambitions. Having considered its strategic options in 2018, Coillte has now decided to establish a formal development partnership with ESB, in the form a new standalone renewable energy company. It is expected to establish this development company (DevCO) in 2021.

Coillte adopts a best in class approach to the estate screening for its wind energy projects. This includes a holistic overview of a proposed site and its suitability to accommodate a potential wind farm. At a very early stage an environmental impact appraisal is undertaken. All third party energy interests for the sale/lease of turbine areas or access requirements also follow a screening exercise approval process.

It is important to note that Coillte is not a Planning Authority for the purposes of undertaking an Environmental Impact Assessment and granting planning permission in accordance with the Irish Planning and Development Acts (as amended). In the interests of proper planning and sustainable development, the suitability of wind farm development proposals on Coillte property is a matter for the relevant Planning Authority.

Within this BAU Forest Plan period, Coillte proposes to continue to investigate wind farm proposals and where appropriate continue to facilitate third party requests. Coillte's interests in projects developed by Coillte or in partnership will transfer to DevCo once that company is established.

The following projects are planned for progression on the Coillte estate within this BAU*:

Proposed Coillte / Co Development projects on Coillte estate in BAU 6 (Correct as at January 2021)			
Name of Project	Location	Status	No. of wind turbines/(MW)
Coom Green Energy Park	Cork	Planning submitted (BRIL Co Dev)	22
Ballinagree	Cork	Pre-Planning (BRIL Co Dev)	TBD
Gortyrhilly	Cork	Pre-Planning (SSE Co Dev)	TBD
Inchamore	Cork	Pre-Planning (SSE Co Dev)	TBD
Total			TBD

Also, within this BAU Forest Plan period, planning permission will be sought by a third party for the following projects:

Proposed projects that will seek / are seeking planning permission on Coillte estate (Correct as at January 2021)			
Name of Wind Farm	Location	Status	No. of wind turbines
Silverbirch	Cordal Forest. Co. Kerry	In planning	1
Curraglass	Ballingeary Forest, Co. Cork	In planning	1
Total			2

Over the course of this BAU period, Coillte and at a later point DevCo will continue to seek out opportunities for small, medium and large scale renewable energy developments on sites that are either designated as being open for consideration or suitable for this type of development. Coillte will also continue to facilitate third party developments where appropriate. In all instances, Coillte will avoid significant impacts on nationally designated sites, protected habitats, Coillte’s own biodiversity areas, receiving waters and high conservation value forest areas.

Depending on project specific circumstances, turbulence felling or the realisation of relevant habitat management plans may be required as part of that project. In all relevant instances, turbulence felling will be kept to a minimum and only occur where it is required in order to ensure the safe and efficient operation of a wind farm project. In all instances where premature felling is required, Forest Service requirements regarding the provision of replacement lands will be complied with and for turbulence felled areas, a restocking management plan will be implemented that will involve the re-establishment those areas in place of the crop that is felled.

* Please note project details provided are subject to change and will be updated if required during completion of final plans.

Key Objective 5

In the South West Munster BAU, Coillte aims to develop/facilitate the development of 4 renewable energy projects in the period to 2025 and will continue to investigate and pursue other opportunities in this area during that period

Biomass Production

The BAU is situated outside the immediate catchment of the two major pulp processing plants, Medite in Clonmel and SmartPly in Waterford. While at present most of pulp is delivered to these mills every consideration will be given to any pulp requirement/ biomass utilisation plants that may arise in the BAU area e.g. the Astellas pharmaceutical facility in Killorglin, Co. Kerry serving a worldwide market for Prograf – a drug used in treatment of organ rejection in transplant surgery. The BAU has a contract to supply biomass material for an industrial heat application. Biomass can play an important role in reducing greenhouse gas emissions and mitigating climate change and this contract will displace fossil fuels from use at the Astellas facility. Coillte will consider other renewable heat supply opportunities as they arise.

On a number of wind farm sites, particularly in the Rockchapel area, felling of mature timber is

necessary in order to avoid wind turbulence. Restocking plans are being implemented to establish short rotation slow growing Lodge pole pine, this material will be harvested for the wood energy market.

3.3.2 Land Sales and Development

Each year the BAU sells, leases or develops a limited area of land, for purposes other than forestry. Most sales are made in response to local demand and typically comprise house sites, isolated dwelling houses, small outlying forest properties, small areas of forest to neighbouring land owners, gravel pits, land to local authorities for infrastructure projects and land for development. Properties sold are those where their value greatly exceeds their value for forestry purposes. A signing-off committee within the company considers all land sales, with larger sales requiring the approval of the Board of Directors. Joint development approaches with local communities are favoured.

It is important to note that no development or lease of lands will be entered into until the consultation/planning process is completed. This includes consultation in particular with local people and communities.

In the course of the period of this plan, properties will be identified which are considered suitable for sale or lease and we will endeavour to consult with the people likely to be affected as these arise.

Coillte also recognises the importance of having its property portfolio registered on the Land Register maintained by the PRA. Coillte will continue to work with the PRA and relevant parties in this regard.

3.3.3 Licensed Use of Coillte Lands

Coillte allows permissive access to all of its lands for walking, except those areas closed from time to time for operational purposes. Cycling is allowed on trails and in areas specifically designated for cycling. All other recreational activities are managed under a licencing process. These activities can be undertaken groups or individuals for both recreational purposes and as a commercial activity. Examples of such activities are mountain-bike events, shooting, pony trekking, off-road driving, orienteering and others as requested. Fees may be applied to licenced events and activities.

The position in regard to these activities is that permission is given under written licence from Coillte. The licence is the formal permission allowing the activity to take place on Coillte lands. It contains a number of conditions and requirements for insurance cover and some of these conditions are specific to the activity and the particular location. Responsibility for issuing the licence, management, processing and safekeeping, rests with the manager at each location. A fee based on the activity is charged for each licence. All the information is available at this location [Coillte Recreation Permit](#)

3.3.3.1 Licensed Hunting

Game hunting and deer stalking are amongst the oldest forms of forest recreation and continue to be legally enjoyed by many people across the country. Respecting the traditional nature of this activity and recognising the social, environmental and economic benefits which hunting can have, Coillte may permit certain types of hunting on designated areas of the estate. This is in line with Coillte's Recreation Policy and Deer Management Policy as well as supporting the principles of multiple use forestry.

Hunting is managed and regulated through the issue of licences which are subject to open public tender. Available areas are advertised bi-annually via the company's website. Tender bids are evaluated by the relevant BAU personnel in accordance with a standard scoring matrix which

acknowledges the annual fee offered, the applicant's previous experience, their commitment to safety, as well as environmental and local interest considerations. Coillte is moving toward a position whereby only persons who have completed an approved competence assessment will be permitted to hunt on its lands. Currently this is a mandatory requirement for all those intending to hunt wild deer.

Coillte have produced a Code of Practice which establishes minimum standards expected of all persons engaged in these activities alongside compliance with licence conditions and national legislation. All of the necessary information on hunting is located here [Coillte Hunting Licences](#)

3.4 Community, Recreation and Tourism Proposals

Coillte's proposed recreation priorities for The South West Munster BAU between 2021 and 2025 include:

- engaging with local community groups and where possible agreeing partnership arrangements for the maintenance and enhancement of existing facilities and possible development of new ones.
- managing and maintaining all existing recreation sites including waymarked ways to the highest standards.
- managing unauthorised usage of the recreation infrastructure in line with best management practice and security policy.
- sourcing funding and developing new infrastructure including 'access for all' on a based on needs identified in conjunction with stakeholders and funding agencies, and to enhance local tourism potential.

Key Objective 6

In The South West Munster BAU, Coillte aims to:

- Provide a high quality recreation offering to the public
- Maintain all existing recreation sites to the highest standards
- Work in partnership with proactive communities to upgrade amenity sites

3.5 Cultural Heritage and Archaeology Measures in The South West Munster BAU

Coillte, as manager of the State's forestry estate, has a duty to respect the cultural heritage attached to it. With support and advice from the NPWS it has developed a code of practice in order to protect this archaeological and cultural heritage.

The BAU will continue to protect archaeological sites on its lands and to note any new sites located during surveys. All recorded archaeological monuments are highlighted during the planning stage of operations. They are identified and fenced off on site by the forest manager to ensure their protection. Pedestrian access from the nearest public road is provided for such sites. Unrecorded archaeological monuments when located are immediately protected and reported to the Environmental Officer. The Forest Service Archaeologist is also notified who advises accordingly. The BAU will continue to support sites of cultural and literary heritage and will identify, protect and record all new items of heritage which are discovered on our lands.

3.6 Environmental Enhancement Measures

The following environmental enhancement measures are proposed for the period 2021 - 2025.

3.6.1 Diversification of Species

Coillte policy is to encourage species diversification in order to maintain and enhance the productive potential of its estate and to increase biodiversity in its forests.

To reduce or eliminate the need for artificial fertilisation programmes, a more cautious species selection is being applied within the BAU, so that the species planted will not need supplementary fertiliser over its rotation. This effectively means we are pursuing a policy of planting lodgepole pine or pine/spruce mixtures on the low yielding sensitive sites. Diverse conifer species such as Scots pine can also be used in areas of shallow peat. Riparian zones are either left as open space or planted with suitable native broadleaf species.

3.6.2 Practicing Low Impact Silvicultural Systems (LISS)

The selection of a silvicultural system on a forest site will be based on a number of different factors. The decisions will be based on: site stability, the management objective of the site (i.e. timber production or biodiversity), and the surrounding landscape.

The list below explains the area where the various silvicultural systems that collectively are known as low impact silvicultural systems (LISS) are adopted. Low Impact Silviculture Systems such as Continuous Cover Forestry, are regarded as alternative methods of silvicultural management to clearfelling. The introduction of LISS systems can only be achieved gradually and can take up to a rotation length to complete. Currently 16% of the productive area of the BAU, is managed under LISS.

Sites on Coillte Estate managed under LISS;

1. Old Woodland Sites (OWS)
2. All Broadleaf High Forest (BHF) stands are to be managed under CCF
3. Amenity sites
4. Agreed Biodiversity Areas where current or target habitat is woodland where appropriate according to Biodiversity Management Plan
5. Management Units currently listed for management under LISS, where silvicultural system equals Small Coup Felling (SCF), Continuous Cover Forestry (CCF), Long Term Retention (LTR), Natural Regeneration (NRE)
6. CCF demonstration sites
7. Scots pine stands, where stability and vegetation provides for Natural regeneration

Key Objective 7

In The South West Munster BAU, Coillte aims maintain and enhance the level of broadleaves in the BAU.

3.6.3 Biodiversity

At present 20% of the Coillte land area in The South West Munster BAU is designated and managed for biodiversity.

Principal methods of retaining biodiversity in the BAU will include:

- **Retention of Old Woodland Sites (OWS)** which have supported woodland cover since at least 1830 and which have particular importance as reservoirs of native biodiversity. The BAU has 2,136 ha identified as old woodland. This represents 3% of the Coillte land in the BAU and 8% of the old woodland identified on Coillte's estate nationally. The management of these areas will be in line with Coillte's old woodland sites policy which includes assessing the value of any OWS before felling and high impact operations for designation as high nature value forests, and reviewing all sites that received a good rating from ecologists in the biodiversity survey for HCVF potential.

As a result of Phase 1 of our public consultation in relation to updating our plans Coillte will, during the course of the current plan period, include in our plans the completion of the inventory of ancient woodlands on the Coillte estate, and of assessing those sites in terms of their nature conservation value.

- **Continuing the introduction of riparian buffer zones** as part of the planning process along all permanent watercourses, typically these will consist of an unplanted strip on either side of the watercourse in addition to a strip of broadleaves. Aquatic buffer zones are established primarily for water protection purposes, and not for timber production.
- **long term retention** of some stands of timber is practiced to enhance environmental, landscape and social benefits of our holdings. Scots pine is the only conifer tree regarded as a native species and it is our policy to retain them long term where it's possible and safe to do so.
- **Retaining dead wood** in all forests managed by Coillte, consistent with health and safety requirements. Ecologically, dead trees are as important as live ones in natural forest ecosystems. They are important structural elements in forest, providing a wide range of decay classes, which support a wide range of invertebrate and vertebrate animals and epiphytic and saprophytic plants and fungi. Dead and decaying wood can provide habitats for more than one-fifth of the woodland fauna. In the UK, 34% of scarce invertebrates depend upon dead wood. Dead and decaying wood also influences the flow rate and organic debris in forest streams and rivers. The intention is that the concentration of deadwood will be the highest in semi-natural woodlands (old woodland sites and broadleaved stands) where large trees will be allowed to grow old and die off on site. On all sites being surveyed by inventory staff, deadwood stems are being recorded.
- Carrying out **survey and monitoring** of important species and habitats, and of water quality to ensure that we are making progress.
- Participating in **biodiversity action plans** for priority species and habitats in partnership with others.
- Long term **water quality improvement** through changes in practice and the reduction in use of chemicals.
- Monitoring sites that were the subject of **EU LIFE projects** during the period of the last BAU strategic plan, and engaging with partners in developing new habitat management projects.
- **Controlling invasive species** (such as Rhododendron) on the Coillte estate, through planting of appropriate species.
- Coillte are committed to implementing a maintenance program for the **native woodland sites** over the duration of the plan.

Area Coillte Land in BAU	Biodiversity Areas (BioClass)	Riparian Buffers	Biodiversity Features	Total Area Managed for Biodiversity in BAU (ha)	Total Area Managed for Biodiversity in BAU (% Coillte Land)
64,594	10,152	2,528	994	12,729	20%

Key Objective 8

In The South West Munster BAU, Coillte aims to review, manage and maintain the areas of biodiversity

4. Sustainable Forest Management Policies and Proposals

Coillte manages its forests to FSC® and PEFC™ Forest Certification Standards, ISO 14001 Environmental Management Standard and OHSAS 18001 Occupational Health and Safety Standard.

4.1 Using Forest Design

The BAU recognises its responsibilities to ensure that its forests are planned and managed in a manner that enhances the landscape. BAU team members have been trained in forest landscape techniques and design. All of the forests (and associated properties) have been given a landscape sensitivity designation of high, medium or low. Each forest therefore requires attention to a greater or lesser extent based on these ratings. The production and implementation of a landscape plan is a constantly evolving process which is under continuous review.

A number of factors will be addressed when drawing up a landscape plan. Felling coupe size is one of the most important of these. As a general rule felling coupes adhere to Forest Service regulatory guidelines, at the time of publishing is a maximum of 25ha. To this extent, BAU team members have identified coupes which were greater than 25ha and redesigned/restructured these areas as necessary. There may be situations where felling coupes of greater than 25ha will be necessary, and these will be treated on an individual basis, with the appropriate assessment and consultation process carried out prior to any felling taking place. Other factors and constraints which need to be considered are; age and structural diversity, limited species selection, soil type, windthrow risk, elevation, deer abundance and buffer zone management. These factors are by no means exhaustive. For example, in recent times the disease *Phytophthora ramorum* has spread in certain locations in Ireland. The disease can kill Larch species, which was always considered a valuable species in terms of providing colour in a landscape. The disease has been detected in the BAU, and it will have an impact on species selection when planning landscape design.

Also, given the occurrence of streams and waterways in the forests, much of our forest design plan centres around buffer and riparian zone management. As current coniferous crops are clear felled, opportunities arise to create riparian areas both within and around the forest properties. These new areas will be managed as a mixture of open space and native broadleaf species such as Rowan, Birch, and Willow.

4.2 Water Protection

Coillte's approach in protecting water quality and other environmental receptors is outlined in our SOP-023 ERA Procedure for Site Operations. This document sets out our standardised procedure in minimising the impacts of forest operations on water quality.

This procedure incorporates adherence to the Forest Service – Department of Agriculture, Food and Marine, Code of Best Forest Practice, which includes a series of Requirements, Guidelines and Notes. Relevant water protection guidelines include Environmental Requirements for Afforestation, December 2016, Standards for Felling & Reforestation (Interim), October 2019, Draft Plan for Forests & Freshwater Pearl Mussel and updated Information Notes on Appropriate Assessment Procedure and completion of Natura Impact Statements (NIS) and regulatory licence/permit conditions pertaining to specified forest operations.

Through the implementation of the ERA procedure under the Environment Management System, the most sensitive sites are identified and additional mitigation measures above and beyond to what is routinely adopted are recorded and implemented during the course of the forest operations.

Amongst the suite of mitigation measures that can be selected by the forest operations manager, one of the most important is the establishment of buffer zones on all significant watercourses within the forest. If not already in place from the time the forest was initially planted, a naturally vegetated buffer zone should be established either at thinning or clearfell & restock stage. On very sensitive sites, such as in the prioritised Top 8 Freshwater Pearl Mussel Catchments, the buffer zones are actively managed and small groups of native broadleaves are planted to hasten the development of a mixed open space/scrub woodland habitat.

Other routine measures, include the restriction of when operations can occur in the year, the provision of silt traps, the minimisation of machinery movement in the buffer zone, extraction route layout and use of brush and the design and location of temporary bridging over watercourses within the operations site. Furthermore, to address the risk of oil spillages from forest machinery, a pollution control plan is included in the Activity Pack and a pollution control kit is on site for all high impact operations.

Forest operations are actively managed and monitored. On the most sensitive of sites, daily visual monitoring is conducted of all watercourse exiting the operation's site and records kept. On a selection of these sites, short-term water sampling of 'high impact' forest operations described in Section 2.9 is carried out. In addition, a network of long term fixed sampling sites on selected rivers has been established in each BAU. The purpose of this sampling is to determine the cumulative impact of forests and associated forest practices have on water quality. Either water sampling and/or aquatic surveys are conducted on a periodic basis throughout the year.

Finally, the BAU when planning forest operations consults with regulatory, statutory and interested stakeholders on the topic of water, including the National Parks and Wildlife Service, the Inland Fisheries Ireland and Co. Councils.

Details of any relevant work completed or being carried out within the BAU will be included in the final plans.

4.3 Reducing Use of Chemicals

Pesticides

Coillte uses an integrated pest management approach; a core principle of Coillte's Environmental Management System and both the FSC and PEFC certification schemes. As such, Coillte is committed to reducing its pesticide usage and, where possible, to using non-pesticide methods to control pests and weeds. Pesticides are applied only when absolutely necessary due to environmental considerations and cost. The decision to apply a pesticide is based on a site assessment, and only taken where non pesticide control options are unlikely to give sufficient protection at a reasonable cost. When pesticides are required, only those approved for use in forestry by the Pesticide Registration & Control Division (PRCD) of the Department of Agriculture, Fisheries and Food (the regulatory body for pesticide use in this country) and FSC listing of Hazardous Chemicals are used. All spraying is targeted, using hand operated sprayers only.

Where pesticides are required, their storage, usage and disposal all comply with national pesticide legislation, EMS, FSC® and PEFC guidelines and Health and Safety guidelines.

In 2021, as part of our Chemical Use Policy all necessary ESRA's were produced, copies of which can be made available if requested to info@coillte.ie.

Fertilisers

Application of fertilisers to areas to be restocked is only carried out where site fertility is low. Where tree crops develop nutrient problems in later years, foliar analysis is undertaken to determine the quantities of fertiliser to be applied. Where required, aerial fertilisation is carried out on thicket stage crops. Approval from the Forest Service is required for aerial fertilisation. This requires the submission of detailed plans and consultation and agreement from the County Council, Fisheries Board and NPWS. Adherence to the Forest Service Guideline on aerial fertilisation is mandatory. A forest crop is described as 'in check' when tree growth is negligible or has ceased altogether. This usually occurs before canopy closure on nutrient poor sites, when the forest is still incapable of recycling the limited amount of available nutrients within the crop.

4.4 Sharing our plans and consultation

Coillte's policy is to consult widely with stakeholders in formulating its management plans, policies and objectives. Examples of how Coillte consults with its stakeholders are outlined below:

- consultation on our BAU felling plans takes place on a formal basis with the Forest Service, Fisheries Boards, National Parks and Wildlife Service and County Councils within the BAU;
- Coillte consults at national level in relation to its forests, at BAU level on its Forest Five Year plans and at forest operational level in advance of all high impact operations. The Forest Five Year plans are currently reviewed on a five year cycle;
- Each BAU hosts consultation meetings with stakeholders annually as part of Coillte's continuing consultation and engagement. This allows Coillte to discuss issues of common interest with stakeholders.
- a comprehensive stakeholder list is held in each of the BAUs. This includes names of local community groups, statutory organisations, non-governmental organisations, farm partners, contractors, customers, and many other stakeholders. Coillte carries out an annual update of our stakeholder list to ensure our records are as accurate as possible;
- Coillte welcome any member of the community and stakeholders in general to view our website www.coillte.ie to find out more about what we do. Coillte also encourage stakeholders to make contact with us so that we can answer queries, consider views and respond to any issues raised. Those who wish to be added to our stakeholder register can do so by completing and submitting the contact form on our website.

Coillte's stakeholder engagement process on our Five Year Forest Plans

It is Coillte's policy to engage widely with stakeholders in formulating its management plans. The Five Year Forest Plans set out a vision for the forests in each business area unit, and also, how Coillte policies and objectives will be implemented at Business Area Unit level during the period of the plan.

The purpose of Coillte's forest plans is to set out plans for forest management activities that take place in each of our BAU's. In compiling these plans Coillte applies principles of environmental impact assessment and risk management on potential interactions between forest activities and receptors such as water and soils, biodiversity, archaeology & cultural heritage, landscape, people and material assets.

Some of the topics covered in our forest plans include the following: commercial planning, timber harvesting, timber sales, community facilities and benefits, environmental enhancement measures etc.

During the consultation process on these forest plans, Coillte actively engages with stakeholders, in the following ways:

- national newspaper adverts
- regional newspaper adverts
- consultation via Coillte's website
- emails or letters to our listed stakeholders
- BAU annual operational and consultation meetings
- forest office meetings (by appointment) which allow further feedback

The stakeholder engagement process is carried out in two stages (scoping and draft plan stage) to take input from the public in relation to its forest plans. A map is produced as part of the consultation process, which reflects the areas targeted for clearfelling. This map forms the basis of public consultation and if concerns are raised about particular areas they are addressed at this time. Coillte endeavour to take on board inputs during this engagement process, while also balancing diverse opinions and contributions from the public in relation to these plans.

Stakeholders should note that Coillte on occasion have to make adjustments or amendments to our felling plans for reasons such as silvicultural, landscape design, restructuring, market conditions, forest disease and windblow. Any changes are consulted on in line with Coillte’s consultation procedures.

Incorporation of results of stakeholder engagement in this BAU

Following Coillte public consultation processes, submissions received are acknowledged, logged on our internal system, and assigned to the relevant BAU or team for consideration and possible incorporation into our plans.

Details of incorporated changes and responses issued by Coillte to stakeholder submissions during Phases 1 and 2 of public consultation received for this Five Year Forest Plan will be published in the final version of our plans which are due to be completed later in 2021.

4.5 Monitoring and Evaluation

Coillte continues to monitor the achievement of its objectives and targets using the proforma set out in [Appendix IV](#). The results of this monitoring will be available at the end of the plan period and published on the Coillte website when the final plans are completed.

Appendix I - Summary of Archaeological Sites in South West Munster BAU

Type of Monument	No. In BAU	SMRS Number *
Anomalous stone group	1	CO091-026----
Barrow - mound barrow	1	CO123-004----
Barrow - ring-barrow	3	CO043-001----, CO048-096----, CO141-145----
Boulder-burial	1	CO114-061----
Bridge	4	CO083-124----, CO124-026----, KE076-064----, KE085-037----
Building	1	KE047-043----
Bullaun stone	3	CO143-091----, KE092-030----, KE110-004001-
Burial	4	CO042-082----, CO107-030----, KE030-024----, KE045-046----
Burial ground	2	CO005-004----, CO081-021----
Burnt mound	1	CO048-175----
Cairn - radial-stone cairn	1	CO033-065001-
Cairn - unclassified	11	CO013-024----, CO033-065002-, CO033-079----, CO034-049----, CO034-050----, CO034-052----, CO049-064----, CO098-039----, CO099-023----, CO141-144----, LI011-115----
Castle - tower house	1	KE092-033----
Castle - unclassified	1	LI011-119----
Causeway	2	LI035-007----, LI035-008----
Children's burial ground	2	KE089-058----, KE101-001----
Church	3	CO059-097----, CO131-018----, CO142-114001-
Clapper bridge	1	CO071-158----
Country house	1	CO134-034----
Cross	1	CO143-073----
Earthwork	2	CO022-170----, CO051-009----
Enclosure	54	CO013-034----, CO013-039----, CO040-015----, CO048-082001-, CO048-176----, CO049-015----, CO049-016003-, CO049-038-- --, CO049-039----, CO051-010----, CO060-028----, CO080-022-- --, CO090-030001-, CO090-030002-, CO090-031----, CO090-032001-, CO090-032002-, CO092-013001-, CO094-021----, CO094-133----, CO107-004----, CO107-062----, CO119-031----, CO131-017----, CO141-007----, KE009-020----, KE068-049----, KE069-002----, KE076-014----, KE081-008----, KE081-048001-, KE089-025----, KE090-001----, KE090-002----, KE090-013----, KE090-014005-, KE091-065----, KE091-069----, KE091-069001-, KE099-004----, KE099-007----, KE099-038001-, KE099-038002-, KE099-038003-, KE099-038004-, KE099-038005-, KE099-038006-, KE099-038007-, KE099-038008-, KE099-038009-, LI011-118----, LI011-147----, LI030-098----, LI035-012----
Field boundary	7	CO038-164----, CO080-023----, CO092-060001-, CO092-060007-, CO094-131----, KE081-020002-, KE083-090----
Field system	1	KE080-052003-

Fulacht fia	33	CO005-032----, CO005-034----, CO005-035----, CO006-075----, CO014-028----, CO014-042001-, CO014-042002-, CO015-001-- --, CO015-155----, CO021-039----, CO030-123----, CO030-223-- --, CO034-026----, CO038-168----, CO042-112----, CO048-115-- --, CO049-057----, CO049-058----, CO049-059----, CO051-181-- --, CO059-096----, CO060-031----, CO069-047----, CO071-033-- --, CO083-018001-, CO083-018002-, CO085-007----, CO085- 012----, CO092-060002-, CO092-060003-, CO092-060004-, CO092-060005-, LI018-106----
Gate lodge	1	KE066-136----
House - indeterminate date	1	CO050-150----
House - vernacular house	1	CO041-111----
Hut site	29	CO048-082002-, CO048-084----, CO048-183----, CO080-029---- , CO092-060006-, CO092-065----, CO104-024001-, CO104- 024002-, CO106-089----, CO128-039002-, KE070-081001-, KE070-081002-, KE070-081003-, KE077-001----, KE080-034----, KE080-043----, KE080-047----, KE080-048----, KE080-051----, KE080-052----, KE080-052002-, KE081-007----, KE081-010----, KE081-012----, KE081-020----, KE081-020001-, KE081-048002-, KE091-068----, KE092-012----
Inscribed stone	1	KE047-060----
Kerb circle	1	CO033-064----
Kiln - lime	8	CO013-012----, CO040-084002-, CO040-086----, CO049-024---- , CO058-002----, CO068-001----, CO142-051----, CO142- 114002-
Mass-house	1	CO093-092----
Mass-rock	7	CO043-009----, CO081-013----, CO093-091----, CO107-056----, CO119-121----, CO123-069----, KE047-061----
Megalithic structure	7	CO034-058----, CO081-050----, KE080-033----, KE080-067----, KE086-007----, LI017-032----, LI017-034----
Megalithic tomb - portal tomb	1	KE047-059----
Megalithic tomb - wedge tomb	10	CO058-075----, CO081-047----, CO090-018----, CO093-001----, CO093-017----, CO093-019----, CO093-076----, CO094-022----, CO106-061----, KE085-001----
Military camp	1	CO128-039001-
Mine - copper	1	CO131-020----
Mound	5	CO013-009----, CO050-001----, CO094-111----, CO115-016----, LI017-035----
Ogham stone	2	CO094-073----, KE080-045----
Redundant record	26	CO005-003----, CO005-005----, CO012-001----, CO024-170----, CO058-015----, CO071-046----, CO093-002----, CO093-070----, CO094-109----, KE067-152----, KE069-002001-, KE072-025----, KE075-004----, KE080-052001-, KE083-029001-, KE083- 029002-, KE091-026----, KE091-054----, KE091-057----, KE091- 072----, KE092-007----, KE092-017----, KE092-028----, KE094- 051----, KE094-051001-, KE101-027----

Ringfort - cashel	6	CO040-014----, CO069-039001-, CO092-012----, KE072-002----, LI011-117----, LI030-096001-
Ringfort - rath	17	CO013-026----, CO021-001----, CO024-082----, CO040-049----, CO094-012----, CO096-033----, CO111-065----, KE045-042----, KE101-001002-, KE101-115----, LI018-008----, LI018-023----, LI018-029----, LI018-084----, LI030-097----, LI037-084----, LI037-088----
Ritual site - holy well	8	CO042-081----, CO048-083----, CO048-085----, CO085-072----, CO107-029----, CO124-036----, KE030-071----, LI030-096002-
Road - gravel/stone trackway - peatland	1	KE091-113004-
Souterrain	9	CO040-128----, CO060-033----, CO069-039002-, CO090-032003-, CO092-083----, KE063-006----, KE089-024----, KE091-099----, KE101-001001-
Standing stone	28	CO004-032----, CO013-008----, CO034-083----, CO039-026----, CO039-027001-, CO039-027002-, CO039-028----, CO040-083-- --, CO040-084001-, CO040-085001-, CO040-085002-, CO040-085003-, CO048-042001-, CO048-049----, CO049-014----, CO080-021----, CO091-065----, CO106-040----, CO107-001----, CO119-030----, CO120-002----, CO132-020----, KE040-136----, KE080-035----, KE081-034----, KE089-016----, LI017-036----, LI020-139----
Standing stone - pair	7	CO041-085----, CO041-113----, CO051-178----, CO059-069----, CO107-040----, KE080-044----, KE086-009----
Stone circle - five-stone	2	CO049-007----, CO051-018----
Stone row	5	CO041-114----, CO049-023----, CO092-013002-, CO093-018----, CO107-067----
Water mill - horizontal-wheeled	1	KE080-046005-

* The SMRS numbers listed in the above table can be used to view and search for these monuments using The National Monuments Service Map viewer available at www.archaeology.ie.

Appendix II - Habitats and Species in South West Munster BAU

Special habitats in South West Munster BAU

Main Properties	Habitat Quality	Management Strategy	Management 2021 - 2025	Issues to be Addressed
Blanket Bog (PB2)				
Mount Eagle Bogs NHA: Knockauncurragh - KY04, Scrahan CK02, Glanowen KY05 Dromalohurt KY10 Garrane KY10 Fordal KY13 Blackrock CK12 Carrigagulla CK12 Barrahourin CK12 Cummerly Connell CK01 CK03	Blanket bog minimally impacted by anthropogenic activity. Blanket Bog forested areas which are suitable for restoration.	Retain existing unplanted blanket bog habitat. Restore open riparian zones. Some sites in the BAU have been selected for restoration under Coillte's Life-Nature Blanket Bog Restoration Project.	Retain open areas. Block drains. Implement ongoing monitoring of LifeNature Project sites.	Regeneration of Birch in areas where forest has been removed. Turf Cutting
Lowland Blanket bog (PB3)				
Moyreen Lowland Blanket bog	Lowland Blanket Bog	Retain existing unplanted blanket bog habitat.	Retain open areas.	Regeneration

Main Properties	Habitat Quality	Management Strategy	Management 2021 - 2025	Issues to be Addressed
Wet Heath (HH3)				
Fordal KY13 Coolsnaghtig CK24 Cloghvoola CK17 Derryard KY13 Sugarhill LK01 Dromadda Beg KY03 Lyrecrumpane KY03 Muingaminnane KY03 Glandonohue CK13 Cummery Connell CK01 CK03 Glenamucklagh CK04	Good quality wet heath	Retain existing unplanted wet heath habitat. Restore open riparian zones.	Retain open areas. Restore riparian zones along Bandon River and its tributaries and Lough Currane	Maintain boundary integrity Indiscriminate burning
Dry Heath (HH1)				
Coolsnaghtig CK24 Ballinloughane LK01 Glanteenassig KY07 Killiney KY07	Dry Heath	Retain existing unplanted dry heath habitat. Increase dry peat habitat. Restore riparian zones.	Retain open areas. Fell, do not replant areas of Compt. 33484-H	Felling licence – permission not to replant
Oligotrophic Lakes				
Ballintleave KY10 Lough Nam - Brackdarrig KY09 Dromtine KY11 Cullenagh CK22 Glanteenassig KY07 -Lough Caum	Good quality Oligotrophic waterbodies in acid peat land catchments.	Retain and monitor.	Retain and monitor.	N/A

Main Properties	Habitat Quality	Management Strategy	Management 2021 - 2025	Issues to be Addressed
FW1 – Eroding/Upland rivers & FW2 - Depositing/lowland rivers Oligotrophic Lakes				
Blackwater and tributaries – SAC 2170		Protection and preservation of rare species within these rivers by the creation of buffer zones		Avoidance of siltation and eutrophication

Protected or Rare Species in South West Munster BAU

Main Properties	Habitat Quality	Management Strategy	Management 2021 - 2025	Issues to be Addressed
Lesser horseshoe bat				
Rossacroo KY14 Glenaserha – KY14 Dromore KY12 Uragh KY14 The Demesne – Glengarriff CK20 Curragh Chase LK02	Stronghold colonies for Lesser Horseshoe Bat (LHB) in Ireland of national and international importance. Buildings and adjacent woodland important	Protect roosts and maintain suitable foraging habitat within 20m radius of roost	Thin out conifers to favour native species regeneration.	Costs of building (roost) maintenance Close liaison with NPWS on an ongoing basis.
Kerry Slug				
Glanteenassig – KY08 and various properties in South Kerry and West Cork.	Stronghold Colonies for the Kerry Slug.	Operational guidelines in known range of Kerry slug.	Apply existing Forest Service Kerry Slug Guidelines, whilst retaining edge trees with lichens and mosses covering trunks. Monitoring of sites ongoing in KY12 in conjunction with GMIT research project.	Liaison with NPWS & FS on an ongoing basis.

Main Properties	Habitat Quality	Management Strategy	Management 2021 - 2025	Issues to be Addressed
Freshwater Pearl Mussel				
Kerry Blackwater, KY12 Cappall KY10, Cumberagh KY10, Owenreagh KY14, Caragh KY09 and Caha River Catchments CK24 Owenmore – Glanshanacuirp, Drom West, Cloghane (part of) KY07 Munster Blackwater – Glanowen, Glanawaddra, Knockabout, Ballynahulla, Tooteengarriv, Barna - KY05 Properties adjacent to main channel of Munster Blackwater,	These catchments are of good water quality and provide a highly rated pearl mussel habitat	Comply with FS FWPM Guidelines.	Consider postponement of clear-felling on deep peat sites within the catchments of the pearl mussel in consultation with NPWS Recommendations on Forest Service FWPM Guidelines and WFD Sub-basin FWPM Forestry Management plans to apply Liaise with pearl mussel technical group of Forest service Liaise with NPWS	Reduction of log supply to the timber industry, loss of revenue, Increased cost of special protective measures.

Main Properties	Habitat Quality	Management Strategy	Management 2021 - 2025	Issues to be Addressed
Hen Harrier				
LK01, KY03, KY04, KY05, LK09, CK02 – (Stacks to Mullagherik Mountains, West Limerick Hills and Mount Eagle SPA 4161) Glandonohue CK13 Cummery Connell CK01 CK03 Glenamucklagh CK04	These SPA's are of good quality and provide a highly rated Hen Harrier habitats.	Maintain suitable foraging and nesting habitats.	Consultation with NPWS & FS, retain open space and restructuring plan.	Reduction of log supply to the timber industry loss of revenue, additional costs, due to restrictions for carrying out operations.
Natterjack Toad				
Ballintleave KY09 - Lough Nambrackdarrig KY09	Oligotrophic lake in peatland catchment.	Conserve lake habitat. Avoid afforestation or peat cutting at lake margins. Liaise with NPWS on conservation needs of the animal	Retain populations at known locations through maintenance of existing habitat.	Monitor the habitat condition.
Little Egrets				
Shippool (CK25)	Good quality high woodland roosts adjacent to main feeding estuarine habitats.	Retain High Forest where Egrets have likely nesting sites	Retain old conifers for nesting sites	Consultation with Steering Group Members

Main Properties	Habitat Quality	Management Strategy	Management 2021 - 2025	Issues to be Addressed
Wood Spurge (Rare Plant)				
Bandon Valley	Damp Broadleaf woodlands of moderate naturalness retaining remnant relict native under storey vegetation	Conserve plant populations and habitats as recorded in ecological surveys.	Retain populations at known locations through maintenance of existing habitat.	Stakeholder consultation
Killarney Fern (Rare Plant and Old Woodland indicator species)				
Glengarriff CK20 Lickeen KY09	Broadleaf Acid Oak woodlands (WN1) of good naturalness retaining year round high humidity.	Conserve plant populations and habitats	Retain populations at known locations through removal of conifers and protection of oak and semi natural habitat.	Avoid actions that could endanger the species.

Native and mixed woodlands in South West Munster BAU

Main Properties	Habitat Quality	Management Strategy	Management 2021 - 2025	Issues to be Addressed
Oak-Birch-Holly Woodland (WN1)				
Derrycunihy KY13 Looscaunagh, KY13 Lickeen KY09 Rossacroo KY14 Glengarriff The Demense CK20 Aultagh CK24 Highfield CK22 Mounttrenchard LK01 Curragh Chase LK02 Lismire CK04 Curraghbinny CK25 Dukes Wood CK16	Small to medium sized woods but in general of good quality, some problems with invasive exotics e.g. Rhododendron ponticum	Maintain areas of native oak canopy, facilitate expansion of oak wood, and remove exotics.	Utilise transformation to native woodland through thinning out conifers to retain woodland condition. Fell at rotation, replant with native broadleaves and Scots pine where appropriate. Address rhododendron control.	Cost of Rhodo removal and control of deer.

Main Properties	Habitat Quality	Management Strategy	Management 2021 - 2025	Issues to be Addressed
Mixed broadleaved Woodland (WD1)				
Kilderry KY10 Killaclohane KY10 Dromillihy Ck22 Castletownsend CK22 Moyross CK22 Rossacroo KY14 Kilmurry KY14 Glenaserha KY14 Castlefreke CK23 Curragh Chase LK02 Tinnacullia LK02 Looney's Wood CK16 Cappagh CK13	Mixed woodland, with areas of relict native ground flora. Some problems with invasive exotics e.g. Rhododendron and Cherry laurel	Restore some areas to broadleaf woodland in most suitable parts of these woodlands. Maintain woodland structure and species diversity in other areas. Implement Coillte OWS policy in these woodlands.	Manage under CCF. Utilise transformation to native woodland through thinning out conifers to retain woodland condition. Address Rhododendron and Cherry laurel control.	Cost of Rhodo and Cherry laurel removal. Control of deer
Mixed broadleaved/conifer Woodland (WD2)				
Aultagh CK24 Mallabracka CK24 Cooleen CK18 Dunboy CK20 Dromilihy CK22 Rossacroo KY14 Dromore KY12 High Wood KY13 Pike Wood KY13 Ballinruan LK08 Cappagh CK13	Mixed broadleaf/conifer woodland, retains areas of relict native ground flora. some problems with invasive exotics e.g. Rhododendron and Cherry laurel	Restore some areas to broadleaf woodland in most suitable parts of these woodlands. Maintain woodland structure and species diversity in other areas Implement Coillte's OWS policy in these woodlands.	Manage under CCF. Utilise transformation to native woodland through thinning out conifers to retain woodland condition. Fell, replant with broadleaf and light crowned conifer species where appropriate. Address Rhododendron and Cherry laurel control.	Cost of Rhodo and Cherry laurel removal. Deer browsing

Main Properties	Habitat Quality	Management Strategy	Management 2021 - 2025	Issues to be Addressed
Wet woodland (Riparian-Wet Willow-Alder-Ash WN5/WN6)				
Tomies East KY13 Rossacroo KY14 Curragh Chase – Southern Portion of Property LK02	Small to medium sized woods but in general of good quality some problems with invasive exotics.	Maintain areas of native canopy, facilitate expansion of native wood, and remove exotics.	Address control and removal of exotic species.	Cost of removal of exotics.
Oak-Ash-Hazel Woodland (WN2)				
Graigie, Rower, Knockanes LK08 Curragh Chase LK02	Small to medium sized woods but in general of good quality, some problems with invasive exotics e.g <i>Rhododendron ponticum</i>	Maintain areas of native oak canopy, facilitate expansion of oak wood, and remove exotics.	Utilise transformation to native woodland through thinning out conifers to retain woodland condition. Fell at rotation, replant with native broadleaves and Scots pine where appropriate. Address rhododendron control.	Cost of Rhodo removal and control of deer.
Oak-Ash-Hazel Woodland (WN2) Yew Woodland (WN3)				
Curragh Chase LK02	One Hectare Core Area extended to 6.9ha under LIFE 2006 to 2010. Excellent example of Rare and threatened habitat type.	Extend Core Yew area over approximately 7 ha through planting regeneration and phased removal of non-native tree and shrub species.	Continue to manage and monitor threats from non-native invasive tree and shrub species under 'After LIFE' management plan.	Cost of continued management of the area for 2021 to 2025.

Appendix III – Recreation Facilities in the South West Munster BAU

Site Name	General Description
Ballaghisheen/Tulligealane, Killeenleagh, Waterville, Co. Kerry	Small picnic site with grassy area beside the scenic route approx. 1.8km from Ballaghisheen Pass (Waterville to Glencar) located within the Kerry International Dark Skies Reserve near Dromid.
Ballygamboon Castlemaine, Co. Kerry	This site comprises of a picnic area, linear walk and up-to-date signage. Its geographical location at a high point in the Slieve Mish mountains affords the walker with some expansive views.
Caragh Lake Killorglin, Co. Kerry	A car park with magnificent views out over Caragh Lake. Walkers use some of the recently developed trails to access the hills behind the site.
Carrigfadda, Reenascreena, Co. Cork	This recently developed trail originates at Carrigfadda Church. Walkers can follow waymarkers which will guide them up the trail, through forestry, to admire the views from the Marian Cross at the peak.
Castlefreke, Rathbarry, Co. Cork	This site consists of a number of properties that are in close proximity to Long Strand. Waymarked trails and signage. Facilities include a car park and picnic facilities.
Curragh Chase Forest Park Adare / Askeaton, Co. Limerick	Curragh Chase forest park has been upgraded in recent years. Facilities include; a number of waymarked trails, multi-use ie. walking and cycling trails, nature trail, lake walk, specimen trees, two playgrounds, an arboretum, ruins of the old estate house, two car parks, picnic areas, toilets, whello-o (all ability orienteering), and up-to-date signage. A caravan park is also located within the grounds, and has recently being upgraded and is open for business. A stand of yew within the property is part of the Restoring Priority Woodland Habitat LIFE project. A local scouts group also have a campsite at the edge of the forest. We are also considering installing a zipit facility within the property.
Curraghbinny (close to Carrigaline)	<ul style="list-style-type: none"> • Car park • 2 waymarked trails • Pagoda
Dromihilly, Skibbereen, Co. Cork	This woodland consists of a car park, threshold signage and picnic area. There is a trail network that has just being upgraded.
Dromkeen (close to Innishannon)	<ul style="list-style-type: none"> • off-road parking • Waymarked woodland trails
Dunboy, Castletownbere, Co. Cork	Amenity Area on the shore of Bantry Bay. The Beara Breifne Way passes through this property.
Farran Forest Park	<ul style="list-style-type: none"> • 2 car parks • 2 waymarked trails • Permanent orienteering course • Wildlife enclosure • Toilet facilities • Zipit Aerial Trails • Volunteer Forest Park Rangers
Foynes Foynes, Co. Limerick	A recently upgraded amenity area on the banks of the River Shannon. Facilities include; off road parking, picnic area, up-to-date signage, a network of walking trails, view points and access to the foreshore.
Garrettstown (close to Ballinspittle)	<ul style="list-style-type: none"> • 2 looped walking trails • Car park <p>Maintained in conjunction with deCoursey.</p>

Site Name	General Description
Glanageenty Castleisland, Co. Kerry	There is a National Looped Walk and associated trailhead running through this forest which is steeped in history and folklore.
Glanawaddra Ballydesmond, Co. Cork	Two National Looped Walks go through this forest in conjunction with IRD Duhallow, and takes in the source of the Munster Blackwater.
Glannageear	Killavullen/Cork Road, forms part of national walking trail – Blackwater/Avondhu Way - with off road parking and picnic area
Glanteenassig Castlegregory, Co. Kerry	Glanteenassig, on the Dingle Peninsula, is located beside the Slieve Mish mountains. It's setting includes two lakes that are popular with fishermen, one of which has a timber boardwalk circuiting the perimeter, a river walk, picnic area, multi-access trail, picnic areas and two car parks.
Gleensk, Glenbeigh, Co. Kerry	Parking & picnic area adjacent to the Wild Atlantic Way that has magnificent views.
Glenbeigh, Glenbeigh, Co. Kerry	Imposing forest overlooking the town of Glenbeigh. Kerry way passes through it. Looped walks intersect with it. 3 rd party picnic area at the base.
Guagan Barra Forest Park, Ballingeary, Co. Cork	Ireland's oldest Forest Park, located behind the oratory of Guagan Barra. This park has 6 waymarked trails ranging from multi-access to strenuous. There are also 2 car parks, toilet facilities and many picnic areas and information panels.
Island Wood (close to Newmarket)	<ul style="list-style-type: none"> • Car park • Picnic facilities • Beara Way
Kilbritten (close to Bandon)	Kilbritten, consists of small parking area with walking trails.
Kilderry, Milltown, Co. Kerry	A popular woodland with picnic facilities, car parking and walking on the forest road network. Note:- a section of the N70 road is currently being realigned by the NRA.
Killaclohane Milltown, Co. Kerry	This is an old woodland site with a looped forest road network that is popular with walkers. There is an old mass rock on site. A mass is celebrated here annually. Signage recently upgraded and there is also a way marked trail.
Kilmurry (close to Macroom)	<ul style="list-style-type: none"> • Car park • Walks • Links with Warrenscourt
Killavullen, Co. Cork	Killavullen National looped walk.
Kimego, Cahirciveen, Co. Kerry	Car park & looped walk with stunning views of the Atlantic. Old peat tower (protected structure) is a main point of interest here.
Licken, Glencar, Co. Kerry	Facilities include lay-by parking with a picnic area opposite the Glencar GAA grounds. The Kerry Way, a NWMW passes through the forest and is very popular with locals and tourists alike.
Lyracrumpane Castleisland, Co. Kerry	This site consists of a waymarked walk that includes both Coillte and private land. There are a number of picnic tables and up-to-date signage in place also.
Mount Hillary (close to Banteer)	<ul style="list-style-type: none"> • 2 National Looped Walks • Parking at forest entrances <p>Maintained in conjunction with Integrated Resource Development Duhallow (IRD Duhallow).</p>
Mullinhassig (close to Aghabullogue)	<ul style="list-style-type: none"> • Parking spot • Popular unmarked riverside walk to waterfall

Site Name	General Description
Oldcourt (fringes of Cork City)	<ul style="list-style-type: none"> • Woodland walks
Pike Wood, Killarney, Co. Kerry	A picnic area on the outskirts of Killarney town.
Pooleen, Glengarriff, Co. Cork	This site is located at the edge of Glengarriff Nature Reserve. Facilities include a car park and picnic area. The main attraction is the pool and associated rock formations created by the Glengarriff River.
Rineen, Union Hall, Leap, Co. Cork	Car park & looped walk at the edge of Castlehaven bay. Park Run 5km held here every Saturday.
Rossacroo, Kilgarvan, Co. Kerry	This is principally a Millennium Forest site with car parking, up-to-date signage and way marked trails.
Tracton Wood (close to Minane Bridge)	<ul style="list-style-type: none"> • Parking area • woodland walks • Permit with MTB Club Cork
Warrenscourt (close to Kilmurry/Macroom)	<ul style="list-style-type: none"> • Car park • Picnic facilities • Woodland walks • Links with Kilmurry Recreation Area
Dromore, Kenmare, Co. Kerry	<p>Dromore is located adjacent to Templenoe village, c. 11km to WSW of Kenmare. The forest area is a long, narrow strip of forestry situated on lands of the former Dromore Estate, adjacent to S of the N70 Sneem to Kenmare road. The area of existing plantation (KY12) is located on a steady SE-facing slope ranging from 0m OD along the shores of Kenmare Sound and rising to c. 70m OD where it is defined to N by the N70. The recorded monuments and protected structures are located within 4km of each other with the tower house (KE092-030---) located at the ENE-end, just outside Templenoe and the children's burial ground (KE101-001----) located at the WSW-end, near Blackwater Bridge.</p> <p>The sites can be accessed via existing forest roads and trackways. The Kerry Way runs through the property. There is a holy well on site also.</p> <p>The Lobster was filmed in the property in Feb / March 2014 which stars Colin Farrell and Rachel Weisz.</p>
National Waymarked Ways	<p>The following long distance walking routes traverse the BAU's forests. They are;</p> <p>Kerry Way Beara Way Sheeps Head Way Sli Gaeltacht Mhúscraí</p>

Appendix IV – Monitoring

Economic Parameters		
No.	Parameter	Measure
Establishment		
1	Afforestation	area established (hectares)
2	Afforestation - Farm Partnerships	area established (hectares)
3	Restocking	area restocked (hectares)
4	Establishment Area Aerially Fertilised	hectares
5	Later Manuring Area Aerially Fertilised,	hectares
6	Total kg/ha aerial fertiliser	
Harvesting		
7	Clearfelled area	hectares
8	Clearfell areas greater than 20ha in Upland areas.	no. of Sales Proposals
9	Clearfell areas greater than 5ha in Lowland areas.	no. of Sales Proposals
10	Thinning area	harvest area (hectares)
Silvicultural Systems		
11	Alternative to Clearfell sites	number of LISS sites
12	Alternative to Clearfell area	area of LISS sites (hectares)
Forest Design		
13	Forest Design Plans required	area of BAU where plan needed (hectares)
14	Forest Design Plans developed:	number of plans
15	Forest Design Plans: blocks restructured	number
Species Composition		
16	Primary species	% area of BAU
17	Secondary species	% area of BAU
18	Broadleaves	% area of BAU
19	Open Space	% area of BAU
Chemicals		
20	Chemical usage	Kgs active ingredient/ha
Land Transactions		
21	Area sold by BAU	hectares
22	Area acquired by BAU	hectares
Environmental Parameters		
No.	Parameter	Measure
Biodiversity		
23	Biodiversity area identified	% area of BAU
24	Biodiversity sites identified	number
25	Biodiversity management plans completed	number
26	Biodiversity features recorded	number
27	Long term retentions,	% area of BAU
28	Deadwood: Standing.	stems/ha in BAU
29	Deadwood: Fallen	stems/ha in BAU

30	Deadwood: Volume	total (m ³) in BAU
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Environmental Parameters		
No.	Parameter	Measure
Water Monitoring		
31	Site Preparation,	no. of operations monitored
32	Aerial Fertilisation - Establishment	no. of operations monitored
33	Manual & mechanical fertilisation - Establishment,	no. of operations monitored
34	Aerial Fertilisation - later manuring	no. of operations monitored
35	Manual & mechanical- later manuring,	no. of operations monitored
36	Harvesting	no. of operations monitored
37	Roading	no. of operations monitored
Forest Health		
38	BAU Forest Health Survey results	any damage recorded [y/n]
39	BAU Forest Health Survey:	any action required to be taken [y/n]
Abiotic Damage		
40	Fires – stocked area damaged	hectares
41	Fire break production	meters
42	Windthrow area	hectares
Deer Culls		
43	Current deer cull return figures	number culled
Social Parameters		
No.	Parameter	Measure
Cultural Heritage		
44	Protected archaeological monuments identified	number
45	Local features/folk heritage recorded on GIS	number
Recreation		
46	Paintball	number licences issued
47	Car rallying	number licences issued
48	Pony trekking	number licences issued
49	Orienteering	number licences issued
50	Community walks/projects	number licences issued
51	Fishing	Number licences issued
52	Hunting	number licences issued
53	Other	number licences issued
54	Visitors to forest parks in BAU	Number estimated
Complaints		
55	Complaints received	number registered
56	Complaints addressed	number signed off
Community		
57	Community partnerships	number
Health and Safety		

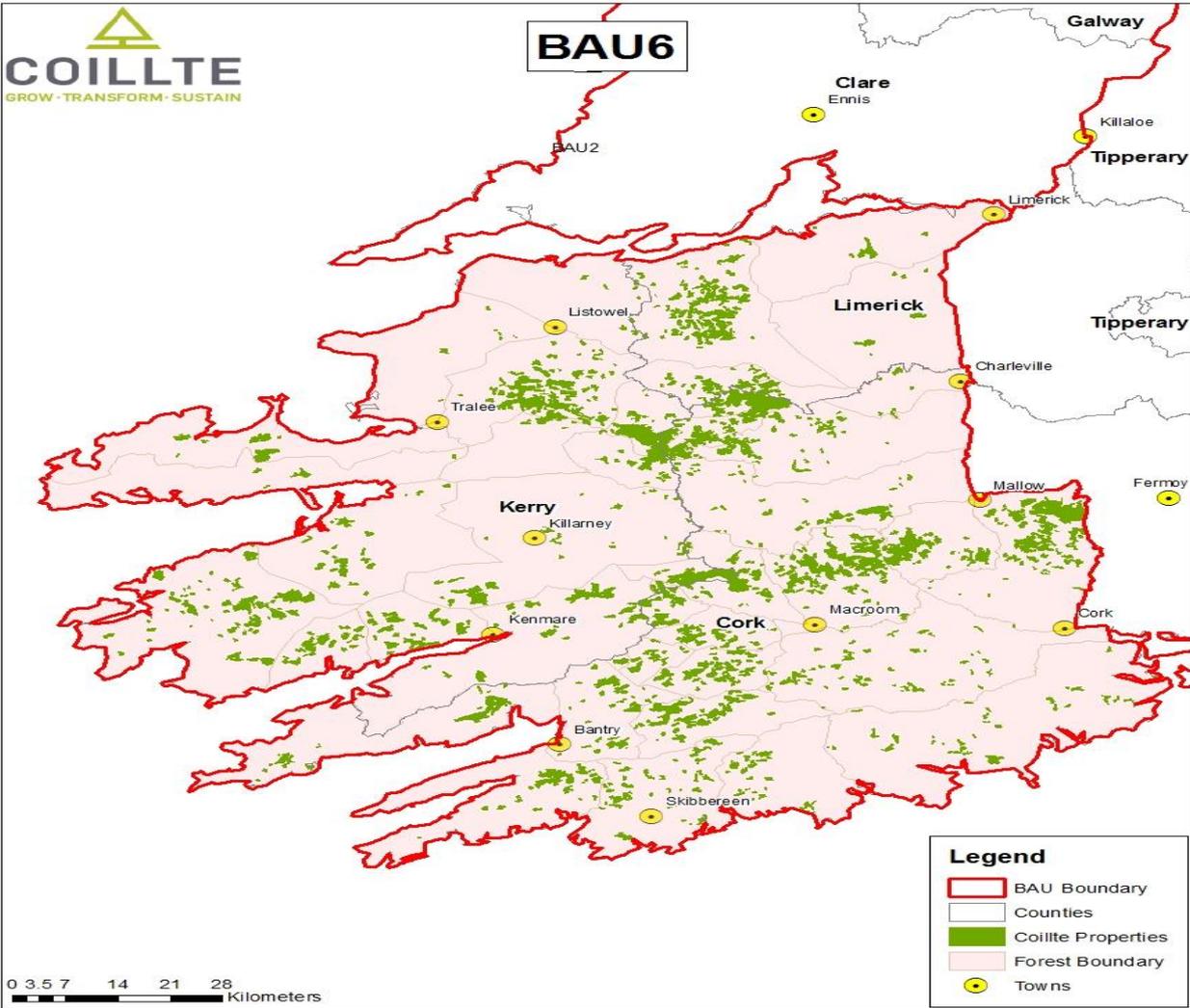
58	Notifyable accidents	number
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Appendix V – Forest Details

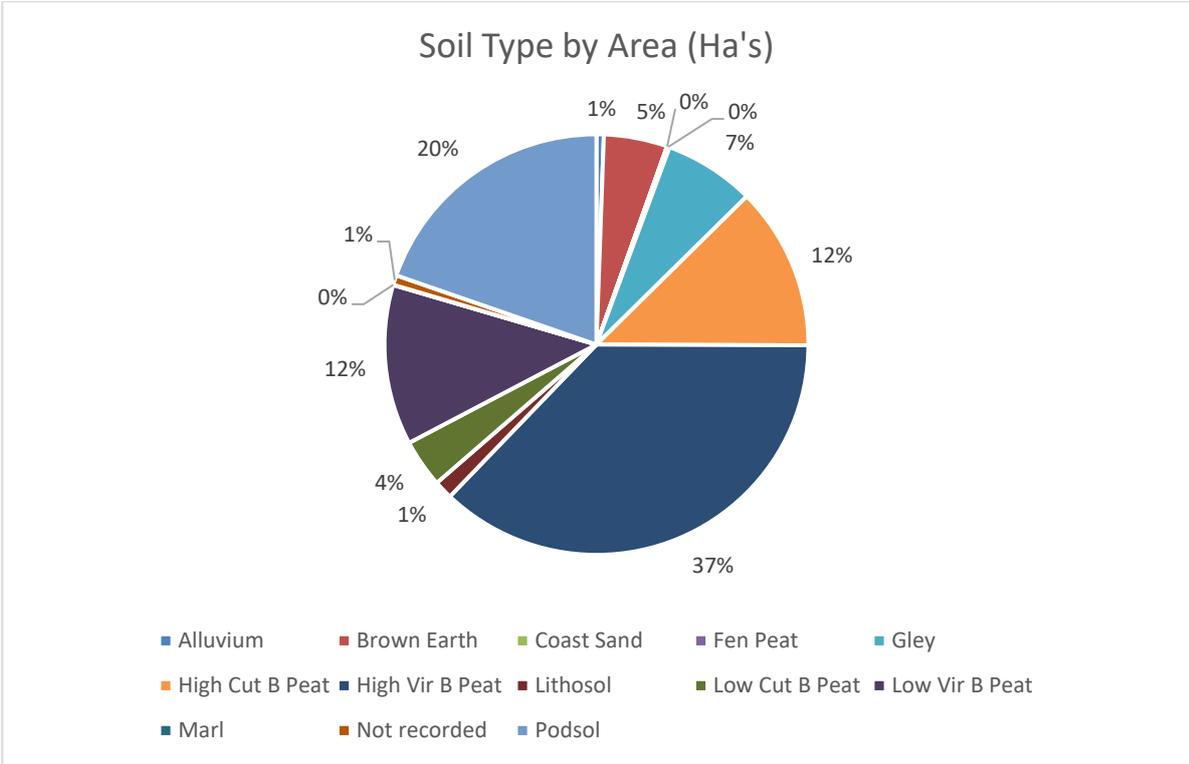
Forest	Forest Gross Area (ha)	Clearfell Volume m ³					Thinning Volume m ³					Clearfell Area (ha)				
		2021	2022	2023	2024	2025	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025
CK01 - Mullaghareirks	2,167	9,876	0	5,651	7,336	11,463	658	978	632	514	376	20	0	14	13	25
CK02 - Scrahan	438	6,081	2,206	0	8,136	6,735	0	0	0	0	0	13	5	0	21	18
CK03 - Rockchapel	1,343	9,818	1,419	7,775	2,741	0	0	741	311	539	402	18	3	21	4	0
CK04 - Newmarket	2,219	15,024	17,486	29,558	15,464	13,726	2,322	1,619	311	3,142	594	37	37	63	38	22
CK05 - Charleville	165	0	0	0	0	0	734	0	0	0	734	0	0	0	0	0
CK09 - Bweeng	2,447	4,007	24,424	36,172	9,590	23,044	2,564	3,173	2,840	5,544	3,923	8	57	92	24	45
CK10 - Banteer	1,402	2,581	3,317	8,033	5,360	3,950	73	1,376	299	2,504	697	5	6	16	9	5
CK11 - Glendav	1,390	20,252	13,248	25,632	22,889	11,361	3,515	979	1,675	1,385	767	43	26	53	38	17
CK12 - Macroom	4,734	17,034	47,232	27,780	10,727	26,974	2,851	3,969	1,271	7,292	4,265	34	96	67	30	57
CK13 - Killavullen	4,591	35,895	23,249	23,400	24,915	38,769	5,785	10,957	6,954	7,729	12,124	68	45	46	49	80
CK16 - Kilmurry	1,245	7,197	3,681	8,024	2,573	2,697	2,950	1,333	6,515	2,747	2,925	19	9	15	9	10
CK17 - Lee Valley	1,874	9,266	3,707	8,572	6,464	5,619	2,292	906	3,405	478	1,689	24	7	18	14	10
CK18 - Reinanaree	1,098	5,871	6,462	4,272	2,152	2,612	228	1,573	433	842	214	17	15	12	4	6
CK19 - Bantry	1,277	5,625	9,723	6,102	3,034	9,372	1,545	0	1,700	0	194	11	20	20	9	14
CK20 - Beara	1,378	21,355	1,425	5,167	3,152	631	0	0	0	118	168	37	3	13	4	1
CK21 - Ballydehob	1,344	2,691	0	6,896	17,082	626	466	1,154	1,420	2,386	115	6	0	14	44	1
CK22 - Skibbereen	1,366	4,903	4,590	0	4,585	2,928	838	2,422	5,292	2,245	2,895	9	15	0	6	12
CK23 - Rosscarbery	685	6,308	706	1,975	1,756	6,394	789	2,750	500	1,066	1,348	12	2	5	2	29
CK24 - Dunmanway	2,288	38,828	5,087	16,453	14,584	25,642	2,152	4,162	2,240	1,207	1,095	87	11	37	34	73
CK25 - Bandon	907	3,475	2,035	2,083	12,400	12,028	1,324	594	965	1,263	6,228	9	6	3	30	34
CK26 - Rows	911	261	12,168	322	0	3,660	414	1,872	1,463	1,825	1,202	0	22	1	0	7
CK27 - Gougane Barra	137	1,586	0	0	0	0	0	0	0	0	0	5	0	0	0	0
CK28 - Ballingeary	506	7,805	0	900	0	447	587	366	1,009	748	1,964	18	0	2	0	1
Forest		Clearfell Volume m³					Thinning Volume m³					Clearfell Area (ha)				

	Forest Gross Area (ha)	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025
CK29 - Coolea	1,314	10,135	12,211	19,263	753	5,546	471	991	100	1,338	814	23	26	38	1	9
KY01 - Ballylongford	190	0	0	0	0	0	0	338	0	937	0	0	0	0	0	0
KY02 - Cashen River	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KY03 - Stack Mountains	4,455	13,716	13,813	8,676	6,458	13,577	2,229	963	1,276	432	672	28	30	18	15	30
KY04 - Brosna	1,817	4,694	25,222	8,988	14,638	8,486	1,470	38	836	186	0	12	50	19	31	15
KY05 - Cordal	1,039	7,462	21,565	6,842	10,285	3,450	0	398	0	0	0	13	45	18	20	5
KY06 - Castlisland	158	0	0	0	0	1,758	0	407	18	80	0	0	0	0	0	6
KY07 - Castlegregory	934	6,638	2,515	3,057	1,466	3,342	0	0	0	0	0	15	5	5	2	5
KY08 - Annascaul	225	1,558	0	0	0	1,315	64	192	0	56	219	5	0	0	0	3
KY09 - Killorglin	1,129	3,085	608	1,741	1,188	12	0	0	1,137	300	1,053	6	2	3	2	0
KY10 - Iveragh	3,590	29,202	25,956	8,884	17,302	8,568	97	375	97	509	0	53	54	18	38	15
KY11 - Sneem	1,067	1,842	10,510	12,299	18	5,809	0	0	0	0	0	4	21	23	0	9
KY12 - Blackwater	1,624	3,392	7,473	936	8,109	11,201	1,891	872	1,343	0	0	8	22	2	16	27
KY13 - Killarney	1,407	9,481	6,412	5,399	3,727	3,288	0	0	0	0	0	18	16	10	5	4
KY14 - Kilgarvan	1,860	19,429	0	4,983	27,860	9,108	3,884	847	1,526	582	256	44	0	9	85	13
KY15 - Clydagh	1,703	28,887	38,681	17,541	50,858	52,157	0	0	109	0	342	70	94	38	107	118
LK01 - Newcastle West	4,243	9,899	20,994	14,277	22,958	7,879	6,045	4,281	5,091	1,831	3,567	21	51	34	53	20
LK02 - Curragh Chase	362	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LK08 - Deel River	334	0	0	2,166	0	11	0	145	772	56	759	0	0	10	0	0
LK09 - Tournafulla	922	0	3,624	174	0	821	944	844	179	1,848	271	0	8	0	0	4

Appendix VI – BAU Map



Appendix VII – BAU Soil Type



Appendix VIII – BAU Species

BAU 6		
SPECIES	Net Area (Ha's)	%
Alder	1,141.16	2%
Ash	376.58	1%
Beech	336.11	1%
Blackthorn	0.58	0%
Birch	1,067.48	2%
Bog cotton	0.35	0%
Corscan Pine	29.72	0%
Douglas Fir	373.56	1%
European Larch	25.38	0%
Elm	0.06	0%
Eucalyptus	85.67	0%

Grand Fir	18.41	0%
Hazel	1.18	0%
Hornbeam	8.47	0%
Hybrid Larch	63.35	0%
Holly	8.24	0%
Japaneese Larch	1,571.39	3%
Lawson cypress	5.92	0%
LodgePole Pine Inland	63.93	0%
LodgePole Pine Lulu	75.97	0%
LodgePole Pine Nth Costal	542.80	1%
LodgePole Pine Sth Costal	1,591.77	3%
Montary Pine	19.35	0%
Noble Fir	83.20	0%
Norway Spruce	339.63	1%
Oak	863.16	2%
Other Broadleaves	194.25	0%
Other Conifers	24.58	0%
Poplar	3.00	0%
Rowan	72.80	0%
Sally	33.09	0%
Spanish chestnut	12.05	0%
Silver Fir	11.09	0%
Scots Pine	481.14	1%
Sitka Spruce	39,336.15	80%
Sycamore	116.64	0%
Western Hemlock	56.02	0%
Western Red Cedar	124.65	0%
	49,158.89	

Appendix IX – BAU by Species Group

Species Group	Net Area (Ha's)	%
Broadleaf	4320.87	9%
Diverse	5501.86	11%
Primary	39336.15	80%

Appendix X – BAU by Land Use Type

LAND_USE_TYPE	AREA_HA
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Bare Marginal	753.13
Bare Plantable	1,982.90
Bare Unplantable	2,708.56
Broadleaf High Forest	2,628.87
Blown	126.57
Burned	204.29
Burned Marginal	11.66
Conifer High Forest	49,605.07
Dead	35.73
Felled	2,970.76
Felled Marginal	17.68
Mixed High Forest	1,956.52
Miscellaneous	67.30
Scrub	320.49
Swamp	101.74
Underdeveloped	830.85
Water	79.76
	64,401.88

