COILLTE
GROW · TRANSFORM · SUSTAIN

North-West Five Year Forest Plan
2021-2025

Foreword

I have great pleasure in publishing Coillte's Northwest 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, and to deliver the multiple benefits from our forests for climate, nature, wood and people. A key part of our business is sharing our plans with our neighbours, communities and stakeholders and endeavouring to incorporate their views wherever possible.

The topics covered in the BAU Five Year Forest Plan include:

Forest Planning for Climate, Nature, Wood and People

- 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
- Community facilities and benefits
- Recreational and tourism infrastructure and partnerships
- Access to our forests
- Environmental enhancement measures such as biodiversity and nature conservation
- Sustainable Forest Management
- Long Term Retention of Trees
- Low impact silvicultural systems
- Water quality
- Forest design
- Use of chemicals

Colm O'Dwyer

BAU Manager

Statement of Compliance with Principles of Sustainable Forest 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 Council®[1] (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.

Colm O'Dwyer

BAU Manager

[1] FSC® licence code FSC®- C005714
[2] PEFC licence code PEFC/17-23-042

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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 deliver the multiple benefits from our forests for climate, nature, wood and people 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 1963-1986. 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, Food and the Marine. 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 (insert link to Appendix II).

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 site, 12 forest parks, six dedicated mountain bike centres and over 3,000 km of waymarked walking trails 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 https://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

80% of its electricity consumption from renewable sources[2]. Coillte has applied for and recently achieved ISO 50001 Certification. This also provides a framework for the Coillte Group to deliver on the Government's planned energy reduction targets to 2030; namely a 51% carbon reduction and 50% energy efficiency improvement. Coillte has successfully completed its Stage Two ISO 50001:2018 Certification Audit of its Energy Management Systems (EnMS) demonstrating that Coillte is compliant with the requirements of the Standard.

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 Irelands reliance on fossil fuel imports, reducing our greenhouse gas emissions and improving domestic fuel security are key pillars for developing a green economy.

In November 2021, Coillte and ESB unveiled a new joint venture company, FuturEnergy Ireland (FEI). The aim of FuturEnergy Ireland is to materially help the country deliver on its green energy targets, achieving net zero emissions by 2050, as set out in the Government's Climate Action Plan and legislated for under the Climate Action Act. The Coillte-ESB joint venture is looking to actively drive Ireland's transition to a low carbon economy by developing 1GW of wind energy projects by 2030, enough to power more than 500,000 homes.

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 through FEI, and as a landowner, 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 through FEI 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.
- Conducting our business in an environmentally friendly and responsible 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 FEI renewable energy projects must afford appropriate protection to the social, environmental and economic pillars of sustainability. FEI's aim is to develop best-in-class wind farms

[2] https://www.gov.ie/en/publication/774e2-national-development-plan-2021-2030/

with the support of local communities thereby enabling Ireland, and its people, to combat climate change.

FEI and other third party developers will 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 FEI provide a Community Benefit mechanism as part of the project.

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. For any queries relating to the development of FEI or third party projects on Coillte lands we can be contacted at lsinfo@coillte.ie.

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 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 SEAI Energy in Ireland 2020 Report, wind generation accounted for 32% of all electricity generated in 2019[3]. 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"[4] to meeting Ireland's energy needs.

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 will continue to assess potential opportunities for other renewable technologies on the Coillte estate such as solar energy and energy storage along with any other emerging technologies.

1.3 Coillte's Resource Management Approach

In recent years, 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

[3] https://www.seai.ie/publications/Energy-in-Ireland-2020.pdf

[4] https://www.gov.ie/en/publication/550df-the-white-paper-irelands-transition-to-a-low-carbon-energy-future-2015-2030/

manner to deliver the benefits from our forests for climate, nature, wood and people. More recently 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, constraints and opportunities are reflected into the model and form the basis of the BAU plan. Once these principles are agreed, each model run during the lifetime of the BAU Five Year Forest Plan will comply with the principles, as will the ensuing harvest schedule. The tree harvest activity levels are publicly available to view on our online interactive web map viewer (https://www.coillte.ie/our-forests/public-goods/forest-plans/), 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 forecasted activity within a property, these areas will be published annually 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 national forestry 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. In addition, Coillte recognises the important and unique role that its trees and forests can play in helping to address climate change.

Coillte operate an open forest policy and welcome over 18 million visitors to our lands each year. We provide over 260 forest recreation sites, twelve forest parks, six dedicated mountain bike trails and more than 3,000 km of walking trails on our lands. We are members of Leave No Trace Ireland and work closely with them to promote responsible use of the outdoors. Coillte also manage over 20% of our forest estate exclusively for nature conservation and biodiversity protection. Our forests have multiple uses and deliver multiple benefits and timber management and recreation are not exclusive of each other and can and do exist side by side on the Coillte Estate. Habitat restoration projects such as Coillte's EU funded LIFE Projects, and Coillte's BioClass programme along with recreation partnerships like the Dublin Mountains Partnership and the Dublin Mountains Makeover Project are showcase projects that demonstrate best practice in natural resource management and managing forests to deliver benefits for climate, nature and people.

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, productive 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 Irish forest wood also lock carbon away, which means that using Irish 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. A recent report shows that, on average, for every cubic metre of local Irish wood that is harvested, to substitute more carbon intensive building materials, we save on average 0.77 tonnes of CO2 equivalents. Currently about five million cubic metres of wood products are produced on the island of Ireland per year, and this means that if we can avoid using more 'carbon heavy' products there can be an enormous benefit of 3.7 million tonnes of CO2 equivalents each year!

In summary, well managed forests have a triple benefit in combating climate change:

1. As a carbon sink: trees absorb carbon from the atmosphere.
2. As a carbon store: Carbon is stored in timber products after harvesting.
3. As a carbon substitute: Timber products can substitute carbon heavy products like concrete and steel.

And finally, trees are always replanted after harvesting to restart the cycle of carbon absorption again.

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, see www.coillte.ie/coillte-nature/

1.5 Meeting external challenges, constraints and opportunities

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 are key to contributing to meeting these challenges and constraints.

1.5.1 Statutory and non-Statutory regulation and certification of forestry

	Response
National Forestry Programme 2023-2027 The Department is currently preparing for the development of the next forestry programme. The current National Forestry Programme 2014-2020 is 100% exchequer funded, comprises an investment of approximately €482 million over its lifetime, and received approval to be extended to the end of 2022 by the European Commission, in accordance with CAP and State aid transition requirements. A new National Forestry Programme is therefore required from January 2023 for a period to the end of 2027.	In response to the National Forestry Programme: • Coillte will manage its forests and lands to increase the amount of carbon stored. • Coillte will set and meet targets for the national timber supply and continue to promote the use of wood and wood products. • Coillte will seek to increase the recreational offering of its forests. • Coillte will increase the area of its forests managed for nature conservation and biodiversity.
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.	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, and is committed to increasing this overall total. 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.
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.	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.

Water Framework Directive (2000/60/EC) The EU Water Framework Directive (WFD) 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. European Union Member States implement the Water Framework Directive through River Basin Management Plans (RBMPs) in six-year cycles. This process allows for assessment, planning, implementation, and review at regular intervals. Ireland's approach to water quality management has developed over the first and second RBMPs and will continue to evolve into the third cycle RBMP 2022 to 2027 to protect and improve water quality nationally and locally. The draft River Basin Management Plans for 2022-2027 were put out to public consultation for 6 months, which ended on the 31st March 2022. Following consideration of this feedback, it is envisaged the finalised plans will be issued in Q4 2022.	National Surface and Drinking Water Regulations have been enacted since 2007, including subsequent amendments, 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 (WFD). 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 Programmes of Measures 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 standards, including all relevant regulations and requirements, and the Forest Management Standards for Ireland (National, FSC® and PEFC). To further progress the implementation of the goals of the WFD, Coillte is an integral member of the National Technical Implementation Group for WFD, regional WFD Operational Committees and the Blue Dot Steering Committee.
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.	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.

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 is now widespread across the island of Ireland.

Coillte liaise closely with Forest Service with regard to significant potential threats to our 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.

There are four main elements to our Plant Health strategy:

1. Survey/Monitoring

Coillte carries out surveys and health monitoring in order to make an early detection of a major pest or disease outbreak.

BAU surveys

Forest health BAU monitoring is conducted annually in Coillte properties since 2007 with samples sent to the Coillte laboratories for follow up identifications. The process was reviewed and updated in 2019 and the information is now collected directly in the field. BAU annual health surveys are carried out using a standardised forest health assessment form which asks the observer to record any details of ill health observed in the property under survey. The form directs the observer to note any unusual signs and symptoms of ill health, what part of the tree they occur in and what the likely cause may be, including both biotic and abiotic sources.

Coillte supports the Forest Service in carrying out all mandatory surveys required under legislation and specific surveys necessary to support Protected Zone status. Coillte has added seventeen new observation sites to assist in the national monitoring for the bark beetle *Ips typographus*. A recent review was carried out to ensure that extra traps were placed at locations close to possible points of entry for bark beetles.

Forest health observations are also recorded during daily forest operations and noted in the Health Survey form and followed up through sampling where required. Inventory staff provide information on forest health through aerial or remote sensing carried out through their daily work.

2. Education and Training

Pest and disease staff training days are held in conjunction with the Forest Service Inspectors. These training days increase staff awareness of risks from pests and disease. Specific training is carried out in relation to particular diseases such as *P.ramorum, H.fraxinea*, (Ash dieback).

Staff awareness information notes are issued in the event of a significant finding that is a potential serious threat such as *Ips typographus* findings in Kent 2019 and 2021.

3. Notification and Communication Procedures

Coillte have a clear plan in place in the event of an insect pest or disease outbreak in the forest. An action plan is developed on how to eradicate or contain the infestation or infection and a communication plan is prepared. Following a suspected outbreak of a significant pest or disease the Outbreak Management Group (OMG) in Coillte are notified and a meeting is convened. The group is made up of the key personnel to deal with the specific outbreak. The OMG meet as required to discuss threats that arise through our outward horizon scanning.

4. Outbreak management

An action plan is developed to identify the extent of the outbreak (via specific surveys as required, assessment of the impact of the outbreak, sanitation or containment protocols, monitoring etc.) In the case of an insect pest or disease outbreak a specific sanitation plan is immediately prepared. Measures are put in place to ensure the infestation or infection outbreak is managed properly and ends quickly.

Sanitation action plans are guided by, agreed and discussed with the Forest prior to implementation. (The Forest Service may inspect sites pre and post sanitation actions being taken.)

The supporting elements to the strategy plan are -

Diagnostic services

The laboratory provides technical support to pest and disease samples. Samples are examined under the microscope for the presence of insect pests or fungal pathogens. Sample pieces are plated out on agar growth media and plant pathogens are isolated and identified from the diseased plant material.

Knowledge transfer and Collaboration

Coillte actively cooperates with other organisations within Ireland and abroad in relation to risk anticipation and is involved in many scientific projects involving different institutions.

Hylobius working group

This group provides a forum for communication and sharing of best practice and key issues associated with *Hylobius* management. (The group represents England, Scotland, Wales, Northern Ireland, Ireland). This group collaborates, between countries, and actively progresses elements of *Hylobius* management to provide cost effective and sustainable protection to planting stock.

1.5.3 Societal Expectations of Forestry

Irish society, the wider public and local communities continue to remain engaged with our forest management:

- A greater awareness of environmental issues continues to grow amongst the public and local communities.
- Coillte has responded to an increased appreciation of for example, landscape design and of the place of forests in the landscape with policies and practices in relation to forest design and with new approaches to tree felling decisions.
- 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. Coillte has an ambition to increase its current recreation offerings nationwide.

1.5.4 Dumping / Litter Management

Indiscriminate, illegal dumping and littering is a major problem for Coillte. The large extent of Coillte's estate makes it a target with regard to the illegal disposal of waste. Coillte does not have any control over indiscriminate dumping of rubbish by persons unknown but works closely with Co Councils to seek prosecutions and enforcements where possible.

Coillte manages 440,000 hectares of lands nationwide, equivalent to approximately 7% of total land of Ireland. It has been the practice of the company and its predecessor since the 1970s to operate an Open Forest Policy, whereby the general public are permitted and welcome to use forest lands for non-commercial, informal, recreational purposes. Formal permission is not required in such cases but access is subject to visitors taking due care for their safety, having consideration for other forest users and respecting the nature of Coillte's operations and following the principles of Leave no Trace.

However, the problem of the illegal dumping / fly tipping on Coillte's estate persists. Coillte endeavours to dispose of the waste as promptly as possible, in a controlled way from both a safety and environmental perspective. The intensity of dumping presents a significant financial and management challenge for Coillte. The fly tipping affects the beauty of the countryside and forestry. It is unsightly

for local residents and visitors alike.

It is Coillte's policy to try to prevent illegal dumping in its forest estate. This is achieved by:

- Keeping forest entrances continuously locked at inactive sites, where appropriate,
- Locking gates outside work hours on active sites,
- Staff keeping vigilant for dumping during visits to forest properties,
- Periodic CCTV surveillance of dumping black spots – to date we have had only limited success in this area , but will be trailing new equipment in the near future in some of the black spots,
- Assisting the Gardai and Co Councils in prosecuting those caught dumping,
- Partnering with anti-dumping initiatives such as the PURE Project,
- Raising awareness of anti-littering with our partners Leave no Trace Ireland,
- Working with local NGO's and community groups.

1.5.5 Forest Fires

Forest fires pose a serious health and safety risk to the public and to people working in the forest sector. They are very difficult to control and put firefighters and forest personnel at great risk in their efforts to extinguish them. They cause widespread ecological and environmental damage to wildlife and to habitats that can take years to recover from especially at this time of the year when many birds and other animals are raising their young. They also cost significant amounts of money to Coillte and private forest owners; in the costs of operations to control the blaze, in the loss of the value of the standing timber and the additional costs in managing and replanting the burnt areas.

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:

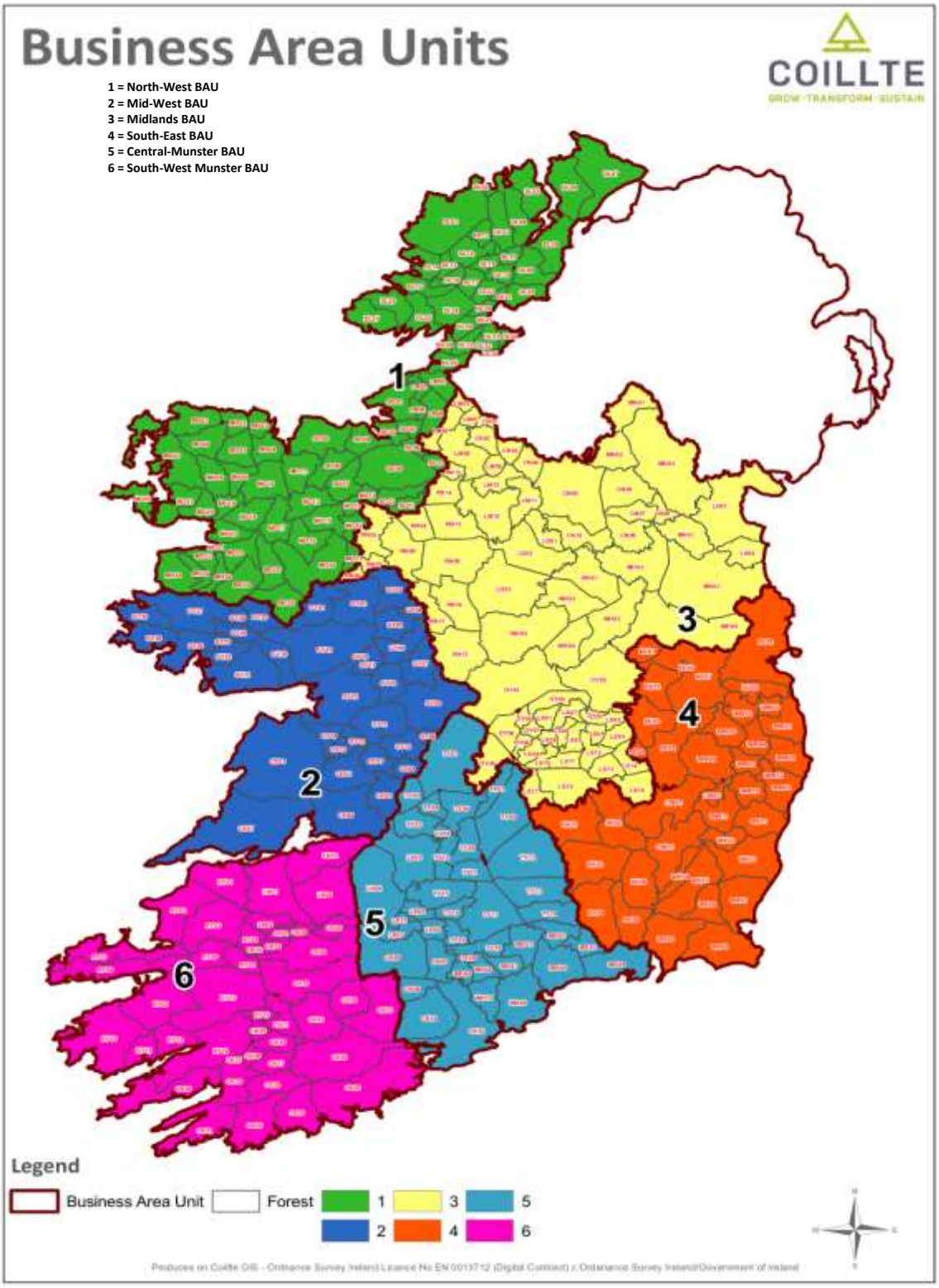
- Surveillance of fire
- Transportation of staff and equipment
- Fire fighting

Coillte ask for vigilance from the public in relation to Forest fires and to act 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, except in designated areas

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. These plans refer to the incoming planning cycle 2021-2025, which were delayed due to Covid-19 pandemic.

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 the health crisis in 2020 and 2021, BAU consultation meetings could not be held. Plans are underway to host consultation meetings during 2022 (in line with government health advice).*

1.7 Summary on the Various Levels of Coillte

Forest Management Planning

The BAU Five Year 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 five 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 Plan process.

An Activity Pack is built when site-level planning is initiated for activity within each Harvest Unit and describes how the plan will be implemented for the operation managers, workers and contractors. Social and environmental impacts, including consultation, are assessed through Coillte's environmental risk assessment process and measures are written into each site management plan.

All levels of planning feed into the annual BAU Operating Business Plan and Work Plan. These plans focus on the tasks/targets to be achieved during the year and outline the necessary resources (financial and personnel) 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 this appendix, a Webmap is publicly available online to view areas with proposed tree felling in the review period. Click here to access the Webmap.

2. Northwest BAU

2.1 The Northwest BAU

All BAU's play important roles in achieving Coillte targets and objectives and delivering the multiple benefits from our forests for climate, nature, wood and people. The Northwest BAU has 36 Forests encompassing all of Co. Donegal, 4 Forests in North Co. Leitrim, 12 forests in Co. Sligo and 34 forests in Co. Mayo.

It is a large BAU covering 1.2 million hectares of Ireland. Within this area, Coillte owns 99,886 hectares (7.94%) of which is comprised of a variety of habitats including productive lands, moorland, marsh, lakes and open space.

Main population centres in the area include Letterkenny, Ballybofey, Sligo, Manorhamilton, Ballina, Castlebar and Westport.

Part of the BAU falls into the Border region and has attracted significant attention in the National Development Plan due to economic and structural disadvantage.

It is a place of forests, rivers and lakes, with a coastline that varies from long sandy beaches to high limestone ridges.

The varied rural landscape and natural assets of the Border Region make it an ideal location for outdoor pursuits, including fishing, water sports and walking.

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

Coillte will continue to work in collaboration with County Councils and other development agencies to contribute to the development of projects that have the potential to deliver strategic benefit to the area e.g. job creation, recreation, culture and heritage.

2.2 Forests and forest products in the Northwest BAU

A map of Coillte's Forests in the Northwest BAU can be viewed in Appendix VI.

During the 2016 to 2020 period the BAU produced approximately 1.7 million m^3 of timber. This timber was primarily sold to our customers in Balcas (Fermanagh), ECC and Murrays (Galway). Smaller Mills include Drenagh (Derry), Boyd Bedding Products (Tyrone), McLoughlins, McCool's and Doherty's Stake Mills (Donegal), John McHales Sawmill (Sligo), Crowes of Mohill (Leitrim) and McHugh Sawmills (Cavan).

Coillte's production supports three major sawmills; Balcas, ECC and Murrays, plus a number of smaller sawmills and local stake mills. It is also a major source of wood fibre for Coillte's CPP (Coillte Panel Product) mills namely Medite in Clonmel, Co Tipperary and SmartPly in Waterford.

The North West BAU also has a vibrant firewood market within the BAU and also in Northern Ireland.

Coillte is building on an existing Energy wood market in Donegal and Sligo/Leitrim.

Forest Products

Private Timber

Coillte is the largest producer and consumer of pulpwood in Ireland. Coillte's strategy is to supplement its own supply through the purchase of private timber, where appropriate. For further information please check the Coillte website at www.coillte.ie

Farm Partnerships

This scheme is where Coillte and a farmer form a joint venture by agreement whereby Coillte plants and manages the plantation for the life of the crop; ownership of the land remains with the farmer. Currently we have 33 farm partnerships within the BAU and we will continue to support our existing partners.

2.3 Community, recreation and tourism facilities in the Northwest BAU

Coillte has an open forest policy and welcomes all walkers to visit its forests according to the principles of Leave no Trace. 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 Northwest BAU recreational activities compliment the lakes and mountains within its boundaries and contributes to the social and economic life of Donegal, Mayo, Sligo and North Leitrim.

Ongoing regular consultation with the local communities provides a basis for further assessment of expanded recreational needs as well as regular assessment of usage of existing facilities.

A number of recreational facilities are the result of a joint initiative between Coillte, local authorities and local communities. The BAU works closely with Donegal, Sligo, Leitrim and Mayo County Councils. Recent examples of this collaborative effort are developments such as:

- Mountain Bike Trail, Coolaney, Co Sligo
- Gortarowey, Carney and Knocknarea, Co Sligo
- Belleek, Knockranny and Tourmakeady, Co Mayo
- Clooney Woods, Drumboe and Ards forest park Co Donegal

The BAU has a high recreational usage with a number of National Way-marked Ways traversing Coillte property within the BAU. These include sections of the Sligo way, Co Sligo, Bealach na Gaeltachta, Sli Dun na nGall, The Bluestacks Way and The Pilgrim's Path, in County Donegal, The Bangor way, Foxford way and Western way in Co. Mayo and The Miners way, Co. Leitrim.

Coillte has also developed a number of looped trails in conjunction with local communities and Fáilte Ireland under their National Looped Walks Programme. The most popular are: Ards forest park, Drumboe wood in Co Donegal, and Deerpark in Co Sligo. The following trail developments in in the BAU have been supported by the Forest Service under the Neighbourwood Scheme:

- Dooney Rock, Slishwood and Hazelwood in Co. Sligo.
- Clooneywood in Co. Donegal.
- Knockranny and Tourmakeady Co. Mayo.

There is a highly utilised forest amenity park located at Ards in North Donegal.

Many Coillte forests in this BAU are expansive and offer multiple activities such as walking, hiking, multi access and cycling on new bike trails, fishing, picnicking, watching wildlife, canoeing, field archaeology or simple enjoyment of the outdoors. A number of submissions were made from a variety of local organisations as part of the consultation on the BAU Five Year Forest Plan 2021-2025. The BAU team engage with these organisations and consider all submissions for the development of recreational areas across the BAU. All submissions will need to be carefully assessed to determine the potential usage of any such area and the availability of funding (internally or externally) for the development of any infrastructure.

This BAU has 58 designated areas for recreational activity, and some of these are detailed on the Coillte website http://www.coillte.ie/our-forests/explore/

A full list of woodlands designated for recreation in the BAU are available in Appendix III.

2.4 Cultural and archaeological heritage in the BAU

Coillte is aware of some 274 (monuments) archaeological sites and sites of cultural significance in its landholdings in the Northwest BAU. These monuments include megalithic tombs of different kinds, cashels and other enclosures and crannogs. A summary of archaeological sites in the BAU is provided in Appendix I.

With support and advice from the NPWS, the National Monuments Service and National Inventory of Architectural Heritage, Department of Arts, Heritage & the Gaeltacht. Coillte has developed a Code of

Practice in order to protect this archaeological and cultural heritage.

Many historical land acquisitions contain farmsteads and features representing rural life in the 19th and early 20th century such as vernacular built heritage, traditional field boundaries, dry- stone walls, gate houses, cultural landscape features and historic farming patterns. 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, heritage 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 of O'Donnell's Castle in Lough Eske and the Derryveigh Famine Eviction site in Donegal. Also Moore Hall, Towerhill and Belleek Demesne in Co. Mayo.

Coillte will identify, protect and record all new items of heritage which are discovered on its lands.

2.5 Biodiversity and high conservation value forests (HCVF) within the Northwest BAU

Habitats and features of biodiversity value on the Coillte estate are identified, mapped and protected during forest operations. The table below shows that approx. 22,909 ha of Coillte land in the Northwest BAU is protected during operations or enhanced to increase its biodiversity value. This equates to approximately 23% 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

Bio Ref	Description	Area (ha)
Biodiversity Areas	Habitats that have particular ecological value as identified and mapped by ecologists	16,591
Biodiversity Features	Small features (usually <2ha) that add biodiversity value to the forest stand, protected during forest operations	1,989
Riparian Buffer Strips	Strips of land that adjoin streams, rivers and lakes, and are managed for their protection.	5,892

(*Overlap occurs between categories)

Biodiversity Areas

Biodiversity areas are essentially areas that contains habitats and species of nature conservation value that occur on the Coillte estate. They vary widely in terms of the habitat types present and their ecological value. Between 2001 and 2005, Coillte undertook a major ecological survey, aimed at identifying habitats throughout the estate that had some particular value for nature conservation. A preliminary review of Coillte's forest inventory, along with the extensive knowledge of Coillte's foresters, revealed the location of potential biodiversity areas within a broad range of site types. Ecologists surveyed the potential biodiversity areas, and assessed their habitat value, based on standard scientific principles. Following consultation with Coillte forest managers, most of the sites identified in this survey were adopted as Coillte biodiversity areas. Also recorded are riparian buffers, which are mapped along streams and rivers and converted to open habitat and/or scrub, in order to protect water quality. The biodiversity areas were incorporated into the forest management planning for the BAUs.

Coillte have since developed BioClass, a science-based procedure for assessing the ecological value of biodiversity areas within the Coillte estate. This system categorises biodiversity areas into four BioClasses. These range from BioClass 1, the areas of highest ecological value, to BioClass 4, areas

that currently have low-to-moderate value but may have potential to develop in future into habitats of high ecological value. In general, sites that most closely resemble natural habitats have the highest value for biodiversity. Based on a review of biodiversity indicators, published in the scientific literature, we have worked with experienced consultant ecologists to define "naturalness" in terms of a series of natural values and biodiversity features which indicate the value of the site for biodiversity. The benefit of BioClass is 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, broadleaf forests, mixed conifer-broadleaf and conifer forests. Also, half of the biodiversity areas 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 Coillte Ecology Team works with the BAU to prioritise biodiversity areas for management action using a biodiversity register of all the biodiversity areas within the BAU. These sites are identified on a rolling programme each year.

Old Woodland Sites

Coillte recognises that woodland sites with a long history of woodland cover have potential ecological value. Old Woodland Sites (OWS) are sites that have been wooded since the 1830s. Old woodland sites are variable in terms of their biodiversity value – some show no remaining evidence of the former (pre-plantation) forest cover. However, there are sites where remnants of a former, ecologically mature forest remain clearly in evidence, e.g. veteran trees, large-dimension dead wood and well-developed woodland ground flora. These old woodland sites have the best biodiversity value, and as such, they are identified and managed as biodiversity areas.

Coillte policy is to assess and survey all OWS in advance of clear felling or high-impact operations. Any site identified as having many natural features present is brought to the attention of the company's ecologists for assessment and, based on the findings of the ecological assessment, is then mapped and managed as a biodiversity area.

Biodiversity Features

Biodiversity features are small features (usually <2ha in area) 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, map 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 standard 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 potential 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 were 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)

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

1. Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (HCVF 1);

   The main focus of this HCVF criterion is protection of species (plants and animals), and the objective is to protect sites that contain important locations for species considered to be endangered.

2. Forest areas that are in or contain rare, threatened or endangered ecosystems (HCVF3).

   The main focus of this HCVF criterion is protection of habitats that are considered to be rare or endangered. The objective is to protect sites that contain these habitats.

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). The selection, mapping and designation of sites for nature conservation is conducted by the National Parks and Wildlife Service.

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.

There is some overlap between HCVF and Coillte biodiversity areas. Some of the large SPAs contain extensive habitats that have low intrinsic ecological value, but that form part of the territory of the bird(s) for which the SPA is designated (hence the large areas of HCVF that doesn't overlap with Coillte biodiversity areas).

Under Article 6(3) and 6(4) of the EU Habitats Directive, all forestry operations throughout the Coillte estate undergo Appropriate Assessment screening to determine if there are any likely significant impacts on the Qualifying Interests (QIs) of SACs and SPAs (i.e. HCVF). If it is concluded that significant impacts are likely, then a full Appropriate Assessment is required which identifies the mitigations required to ensure there are no impacts on these designated sites and their QIs.

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)
NHA* – Natural Heritage Area	1,137
SAC* - Special Area of Conservation	4,829
SPA* – Special Protection Area	561
Nature Reserve	10
pNHA	3,886
TOTAL HCVF	6,407

(*Overlap occurs between categories)

Coillte also recognises that woodland sites with a long history of woodland cover have potential ecological value. Old Woodland Sites (OWS) are sites that have been wooded since the 1830s. Old woodland sites are variable in terms of their biodiversity value – some show no remaining evidence of the former (pre-plantation) forest cover. However, there are sites where remnants of a former, ecologically mature forest remain clearly in evidence, e.g. veteran trees, large-dimension dead wood and well-developed woodland ground flora. These old woodland sites have the best biodiversity value, and as such, they are identified and managed as biodiversity areas.

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' (i.e. ecological value) is brought to the attention of the company's ecologists and their advice acted upon.

The Northwest BAU achievements in relation to nature conservation include the following:

1. 1086 ha of peatland has been restored over 10 sites –
    - Croaghonagh and Carrick Barr Co. Donegal.
    - Owenirragh, Corravokeen, Shanvolahan, Glencullin, Derry, Eskeragh and Bellaveeney Co. Mayo.
    - Sessuegilroy Co Sligo.
2. LIFE Project – 24 ha Alluvial Woodland, Hazelwood, Co. Sligo
3. Millennium Project – Cullentra, Co. Sligo 57.8 ha
4. Approximately 2,008 ha of OWS sites in the BAU; a number of these are being managed to retain their semi-natural characteristics.

We continue to work closely with our stakeholders such as NPWS to review potential life projects.

2.7 Species and habitats in the Northwest BAU

The BAU includes some non-forest habitats of high ecological value. These include peatland/fen, heath, exposed rock, grassland/marsh, freshwater/swamp and coastal habitats. The bogs of West Mayo are renowned for their wilderness, flora and fauna.

A number of rare bird species are present at sites within the BAU. These include the Merlin, Peregrine Falcon, Hen Harrier, Golden Plover, Red Grouse, Red-throated diver, the Chough, the Ring Ouzel and the Golden Eagle.

The following rare species of plants are present in the BAU. The Globe Flower, Irish Lady's Tresses, Yellow Birds nest, Round leaved Wintergreen, Lesser Tway Blade, Narrow buckler-fern, Lemon-scented fern and the broad leaved helleborine. Amongst invertebrates are the white-clawed crayfish and the Fresh Water Pearl Mussel in Co. Donegal and Co. Mayo.

Notable mammals in the area include the red squirrel, lesser horseshoe bat, pine marten and badger.

Insects include the Marsh Fritillary, which is Ireland's only legally protected insect. Colonies occur within Ards Forest Park in an area where coastal heath adjoins the woodland. The area is rich in "Devil's-bit scabious" which is the larval food plant, and the woodland provides the necessary shelter. It also occurs in an area adjoining the Knader wood and in other locations, including Lough Sallagh/Cashelnavean."

The BAU aims to maintain and where possible enhance habitats of ecological value and those that support species of ecological interest. Where species and/or habitats are a Qualifying Interest for a Special Area of Conservation (e.g. freshwater pearl mussel, blanket bog) or a Special Protection Area (e.g. hen harrier), the Appropriate Assessment process determines if any potential significant impacts on these species or habitats, and if so mitigation measures are detailed in a Natura Impact Statement. If there are potential impacts, mitigation measures are detailed in a Natura Impact Statement. In addition, the Coillte ERA (Environmental Risk Assessment) process aims to identify potential impacts on several environmental receptors including biodiversity (e.g., badger setts), and to identify suitable mitigations. Close communication will be maintained with the NPWS on matters

relating to species and habitats of nature conservation concern.

Appendix II details the main habitats and species of interest within the BAU (some occur within designated sites such as SACs, SPAs and NHAs i.e., HCVF, while others incorporate habitats and species of wider ecological value). The management approach is described in brief.

2.8 Invasive species

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 and Japanese Knotweed which are a significant issue on our properties.

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 biodiversity areas).
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 Northwest BAU

In terms of water, the BAU has many lakes including Lough Eske, Lough Finn, Lough Derg and Gartan in the Donegal area and Lough Gill, Lough Melvin, Lough Easkey, Lough Talt, Lough Gara and Glencar Loughs in the Sligo/Leitrim. The western part of the BAU is dominated by the "Great Western Lakes" Conn, Cullen, Mask and Cara in Co. Mayo. The BAU is covered by Inland Fisheries Ireland and The Loughs Agency. The main river catchments in the Donegal area are the Finn, Leannan, Swilly, Gweebarra, Owenea and the Eske. In Sligo/Leitrim area of the BAU the main rivers are the Shannon, Unshin, Owenboy, Owengarve, Bonet, and Diffreen. In Mayo the main rivers are Moy, Erriff, Newport, Deel, Owenboy and Owengarve. Important salmonoid catchments including the Errif, Moy, Finn, Lennan, Owenea have been designated as SACs. The rivers and lakes of the BAU support important salmon/trout fisheries and supports the local tourism industry which is important to the local economy.

Six of the catchments are designated SACs for the protection of the fresh-water pearl mussel (Margaritifera, margaritifera):

i. Leannan/Glaskeelan

ii. Clady

iii. Eske

iv. Owencarrow

v. Owenea

vi. Bundorragha

vii. Newport

The Bundorragha and Leannan/Glaskeelan sub-catchment are in the top 8 FWPM catchments in Ireland.

A list of all catchments and sub-catchments located in BAU 1 is provided at Appendix VI and all relevant maps and water quality status are publicly available at www.catchments.ie, (select 'View Data and Dashboards').

Coillte abides by all Forest Service Guidelines, Regulations and Requirements regarding protecting water quality, and in particular Standards for Felling and Reforestation (2019) and Environmental

Requirements for Afforestation (2016), which detail sound and practical measures for handling forest operations in proximity to waterways. As the largest landowner in counties Donegal, Mayo and Sligo Coillte has a responsibility to ensure that its 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 freshwater pearl mussel species
- Presence of important salmonoid rivers

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, LAWPRO, 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 forest operations, an Appropriate Assessment (AA) screening is conducted in order to determine if there is any potential impact on aquatic Qualifying Interests (QIs) for European sites that are hydrologically linked to the project area. If a full AA is required, a Natura Impact Statement (NIS) is produced, which outlines the mitigations that will be applied to protect aquatic QIs. These mitigations include the standard measures that are applied to protect water quality (DAFM 2019) such as exclusion zones adjacent to aquatic zones during clear-felling operations and establishing setbacks at the reforestation stage. Reference is made on how the trees are to be removed and prohibition of machinery movement in the exclusion zones during forest operations. Additional non-standard mitigations are applied as required, depending on the nature of the operations, the site characteristics and the sensitivity of any receptors. These may include restricting the timing of operations, establishing wider setbacks or low impact cultivation methods.

If the proposed forest operations site is judged to be water sensitive (as identified in the ERA process), 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.

The BAU looks forward to continuing the work on buffer zone management with the Loughs Agency, in particular the potential for broadleaf planting adjacent to salmonid watercourses.

2.10 Forest Management Issues

Coillte's Northwest BAU faces several issues in relation to managing its forests effectively for timber production while also promoting their use for their recreational, environmental and social purposes. The BAU borders three counties in Northern Ireland; Co. Derry, Co. Tyrone and Co. Fermanagh. Over the past 5 years these have included:

- Poaching of deer; The increased level of poaching in the recent period has put greater emphasis

on security.

- Illegal use by motorised vehicles, inappropriate recreation with quads and motorbikes
- Security; risk of major losses through theft, vandalism of property, and crop damage. To minimise this loss the BAU has commenced the implementation of the Company's security policy, in the BAU we have a contractor assigned to security of the estate.
- Litter and waste dumping; The majority of illegal dumping of domestic waste occurs where forests adjoin public roads and at forest entrances. The problem is extenuated in rural and remote areas but in close proximity to large urban areas. Coillte work closely with available Litter wardens to try combat this increasing problem.
- Anti-social behaviour; Coillte are investigating the most appropriate methods of security including the development of cameras in order to reduce this problem and lead to prosecutions.

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 motorised vehicles, dumping, anti-social behaviour etc. will be prioritised as candidate sites 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. Coillte have supported the development of new national enforcement powers which will make it an offence to use a scrambler or quad bike on public or private lands, including Coillte lands, without the permission of the landowner. These new laws will afford Gardai the power to seize scrambler bikes and other off-road vehicles.

2.10.1 Deer Management

Wild deer on Coillte's estate is 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.

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 the Hunter Competence Assessment programme and the Irish Deer Management Forum. This group went into abeyance following the retirement of its Chairperson but moves are afoot to re-convene this forum shortly. In addition, Coillte have been central to the roll-out and adoption of a new on-line Hunter Area Management System (HAMS) within the hunting community in Ireland. 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 Coillte's Estates, Operations, Public Relations

and Recreation teams.

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 Five Year Forest Plan – Northwest BAU

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 natural assets and our overall goal is to deliver the multiple benefits of our forests for climate, nature, wood and people.

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;
- natural and semi-natural habitats are protected and enhanced through appropriate management;
- there is continuity of forest habitat for rare and threatened species;
- provide a range of recreational activities in our forests to support societal health and well-being;
- forest recreational sites will be a part of the tourism infrastructure and will be an important contributor to the tourism economy;
- sharing our plans with local communities, NGO's and interested stakeholders.

3.2 The Forest Resource and Wood Production

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

The Coillte Estate

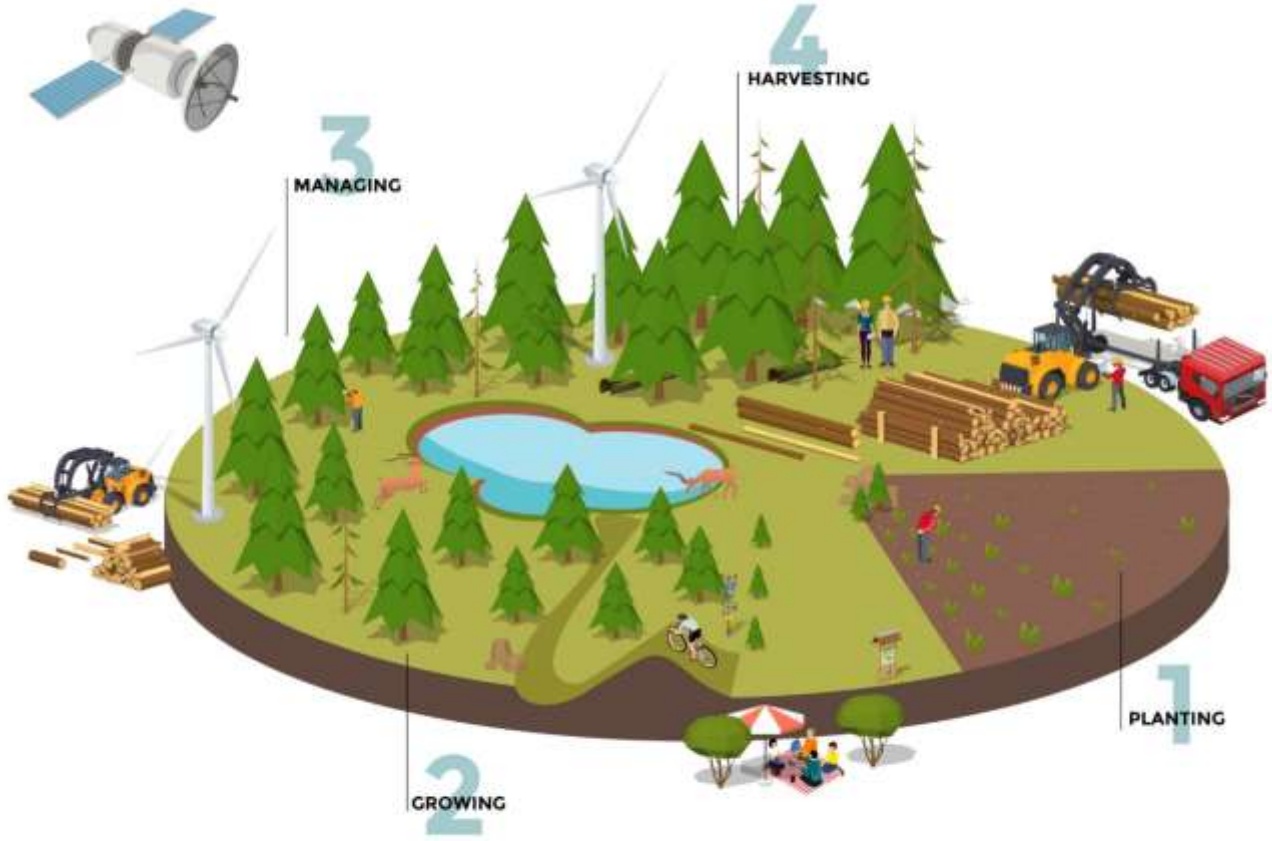
It is Coillte's policy to achieve the maximum volume potential of the estate consistent with sustainable forest management principles (see Section 4).

Key Objective 1

In the Northwest BAU, Coillte aims to produce approximately 2.1 million cubic metres of wood from its forests between 2021 and 2025.

1.92 million cubic metres of this will be provided through felling and 0.24 million metres^3 of this will be achieved through thinning.

Figure 1: The Forest Cycle



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

- Clear fell is the most common silvicultural system used in Ireland and the UK and has predominated over the past century characterized by the establishment of new forest plantations. The extent of clear felling and the size of individual coupes 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 many of our forest sites there is very little scope for alternative systems that remove mature trees more gradually. At harvest 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 Forestry Act, 2014; an act which provides for the development and promotion of forestry in a manner that maximises the economic, environmental and social value of forests within the principles of sustainable forest management. 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. In addition, Coillte's felling plans are also made available to the public via Coillte's online mapviewer hosted on the Coillte website here and updates to these plans are notified to registered stakeholders on an annual basis. If you wish to register as a stakeholder which ensures you are notified, please refer to the contact page on our website for further information.

In addition to our Five Year Forest Plans, our long-term harvesting and restocking plans for each Business Area Unit (BAU) which covers the period 2026 to 2040 can be found **here .** Changes to these plans may arise for many reasons such as silvicultural, landscape design, restructuring, etc. Stakeholders are notified of these proposed changes annually. Any queries relating to these plans can be submitted to **info@coillte.ie.**

New Planting and Replanting

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

> Key Objective 2
>
> In the Northwest BAU, Coillte aims to restock 7,140 hectares of forest 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 Northwest BAU and there is also the need for maintenance of the existing road network. Where required, we engage with each local authority in relation to areas for harvesting, associated timber volumes and designated haulage routes for the current plan period. Our engineering staff have 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 approximately 15 km annually of new roads in our forests
- maintain the existing road infrastructure
- ensure the roading infrastructure complements and supports harvesting access to the forest
- develop road access to areas that are currently inaccessible
- Where required licences to construct the new roads will be obtained from the relevant regulator who

consults with regulatory stakeholders as part of the licencing process

Key Objective 3

In the Northwest BAU, Coillte aims to construct approximately 77 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, county council roads/bridges etc.). To address the access issue a list of all relevant areas is currently compiled and these will be prioritised on the basis of timber supply and a plan put in place to address potential 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 Donegal/Sligo/Mayo Co Councils with a view to improving access.
- Nutrient deficiencies The Northwest BAU has a large area of Sitka spruce which is 'in check', much of which was planted in the 1980's. In many cases these crops were planted in anticipation that site nutrition would be supplemented with fertiliser applied from a helicopter. The Northwest BAU is currently reviewing these areas in check and their suitability for fertilisation. This encompasses environmental sensitivities and an economic cost/benefit analysis along with the necessary foliage analysis. If the silvicultural argument is strong in terms of fertilisation we will proceed to apply for a licence to aerial fertilise those areas and conduct consultation with all relevant bodies with regard to safeguarding watercourses and comply fully with Forest Service guidelines on aerial fertilisation. Coillte will continue to evaluate other ground based alternatives on an ongoing basis.
- **Coillte's commitment** to sustainable forest management and environmental protection requires Coillte to review its practices and assess potential 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.
- The provision of a harvesting infrastructure that can respond to the environmental challenges will require ongoing training and cooperation 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 Northwest BAU.
- The high proportion of low production forests in the Northwest BAU is an issue in meeting production targets and the BAU will examine alternative uses in some of these forests as a result. Thus the BAU will actively consider alternative land uses such as wind farm development, one-off property sales and the continued adoption of the Western Peatland Protocols for the alternative management and restocking of these low production sites.

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 Northwest BAU, Coillte will continue to manage its 33 Farm Partnerships according to the principles of sustainable forest management

Overall production targets in the Northwest BAU 2021-2025

Coillte's proposed operating targets for the Northwest BAU for the period of the plan- 2021-2025 are summarised in the table below.

Northwest BAU main Coillte production targets 2021-2025[5]

Annual Totals					
Year	2021	2022	2023	2024	2025
Establishment					
Planting (ha)					
Regeneration planting (r/f) (Replanting after felling)	1650	1400	1350	1370	1370
Harvesting Programme					
Harvest categories (000m3)					
Thinnings	47	49	50	50	47
Regeneration felling (P,C,W) felling	369	367	389	401	390
Total	416	416	439	451	437
Felling area (ha)	767	814	852	824	807
Roading Programme					
Roading (km)					

[5] Source: Forecast 2016 – 2035 obtained from Coillte Strategic Plan. Actual volumes may vary resulting from an annual refresh of the strategic plan. On an annual basis, over the plan period, Coillte will identify and publish areas where significant differences occur to figures originally published.

New	25	13	15	14	10
Upgrading	29	28	24	23	24
Total	54	41	39	37	34

3.3 Coillte's Non-timber Businesses in Northwest BAU

3.3.1 Renewable Energy Projects

Coillte has been 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.
Coillte has explored a range of partnerships and/or joint venture models in relation to its future own renewable energy development ambitions. Having considered its strategic options in 2018, Coillte decided to enter a formal development partnership with the ESB. A new standalone joint venture renewable energy company between Coillte and the ESB was established in November 2021 and the entity is called FuturEnergy Ireland (FEI). Coillte's interests in developing its own energy projects or through other historical partnerships have now transferred to FEI.

FEI adopts a best in class approach for the early stage identification of potential renewable 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 and public awareness and consultation programmes are implemented where appropriate.

Within this BAU Five Year Forest Plan period, Coillte as a landowner will continue to consider wind farm proposals and where appropriate continue to facilitate FEI and other third party requests. All FEI and third party energy interests for the sale/lease of turbine areas or access requirements follow an 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.

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

Proposed FEI / Co Development projects on the Coillte estate in BAU 1 – correct as at February 2022			
Name of Project	*Location*	*Status*	*No. of wind turbines/(MW)*
Cloghercor	Donegal	Pre-planning (Orsted Co Dev.)	TBD
Croagh	Leitrim/Sligo	In-planning	10 (10 Coillte Land)
Derrykillew 2	Donegal	Pre-planning (Statkraft Co Dev.)	TBD
Drumnahough	Donegal	In-planning (SSE Co Dev.)	12 (10 Coillte Land)
Glenard	Donegal	In-planning	15 (11 Coillte Land)
Glenora	Mayo	Pre-planning (SSE Co Dev.)	TBD
Lenalea	Donegal	In construction	7 (5 Coillte Land)
Sheskin South	Mayo	Pre-planning (SSE Co Dev.)	TBD
Total			TBD

Proposed third party planning permitted wind turbines on the Coillte estate in BAU 1 - correct as at February 2022			
Name of Wind Farm	Location	Status	No. of wind turbines
Sheskin	Sheskin Forest, Co. Mayo	Planning permitted	8
Meenbog	Croaghonagh Forest, Co. Donegal	In construction	17
Huntstown	Brenter Forest, Co. Donegal	Planning permitted	2
Total			27

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 for wind turbines on the Coillte estate in BAU 1 – correct as at February 2022			
Name of Wind Farm	Location	Status	No. of wind turbines
Graffy	The Glens Forest, Co. Donegal	In planning	1
Meenbog 2	Killygordon Forest, Co. Donegal	Pre-planning	TBD
Total			TBD

Over the course of this BAU period, FEI will continue to explore opportunities for small, medium and large scale renewable energy developments on suitable sites for this type of development. Coillte will also continue to facilitate third party developments where appropriate. In all instances, Coillte, through its processes, seeks to 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.

Key Objective 5

In the Northwest BAU, Coillte aims to develop/facilitate the development of 13 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

Coillte will consider renewable heat supply opportunities as they arise.

3.3.2 Land sales and Acquisitions

Coillte manages a 440,000 hectare forest estate nationally and regularly buys and sells land as part of

normal estate management operations. Coillte has a dedicated Acquisition and Sales Team who are actively looking to acquire bare land and immature forestry to expand our estate, and to sell land that may provide a solution for individuals, businesses or communities. 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 areas of forest to neighbouring land owners and local communities, 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 to ensure the health and safety of all of our visitors and forest users. These activities can be undertaken by 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 Permits

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 North West BAU between 2021 and 2025 include:

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

The key projects in this BAU over the period of this plan are:

- engaging with Failte Ireland and other organisations as appropriate to promote Ards Forest Park and other BAU1 properties as key stops on the Wild Atlantic Way
- Continuing our exploration of the development of amenities with Donegal/Sligo/Leitrim/Mayo County Councils
- Organise local events for National Tree Week, National Trails Day and National Heritage Week.

The Wild Nephin Project

This is a project consisting of a joint venture between Coillte and the National Parks and Wildlife Service,(NPWS), with support from Mayo Co. Council and local organisations. Its supports a range of recreation, and Environmental objectives.

As part of the joint venture with NPWS Coillte will transfer ownership of our forests at Nephin, Co. Mayo into the Ballycroy National Park. When the transfer is complete the land will be managed by the National Park and Wildlife Service. Through this project the National Park will be extended and this will make one much larger and better National Park for Ireland. The transfer will include forests in the following townlands: Muingaghel, Derry Lower, Derry Upper, Tubrid More, Tubrid Beg, Altnabrocky, Tawnynahulty, Fiddaunnageeroge, Letterkeen, Lettertrask, Srahmore, Leamadartaun and Srahrevagh.

We understand and acknowledge members of the community care greatly about the forest and this project will compliment and build upon the already existing outstanding natural environment in the local area that will serve future generations.

Key Objective 6

In the Northwest BAU, Coillte aims to:

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

3.5 Cultural heritage and archaeology in the Northwest BAU

Coillte, as the largest landowner in the country has a duty of care of the cultural heritage across the estate. All archaeological monuments are protected by law under the National Monuments Acts (1930-1994) and should not be disturbed without prior official approval. Coillte is guided by the Forest Service - DAFM and the National Monuments Service- DHLGH in the best forest practices in the protection of

these structures.

All recorded archaeological monuments are highlighted during the planning stage of operations. They are identified and cordoned off on site by the forest manager to ensure their protection. Pedestrian access from the nearest public road, forest road or forest track is provided for such sites at afforestation stage and is established or maintained at reforestation stage. Outside of the these stages of the forest cycle, where professional archaeologists require access to a monument, this can be facilitated locally by Coillte staff. Unrecorded archaeological monuments, when located, are immediately protected and reported to the local Coillte Environmental Manager who in turn contacts the Forest Service Archaeologist for further advice.

The BAU will continue to support sites of acknowledged cultural and literary heritage and will protect and record all newly identified features of heritage that are discovered on the estate.

3.6 Environmental enhancement measures

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

- Create a linked series of Buffer/ Riparian zones along water courses
- Continued work on Life sites, Millennium woods & Native Woodlands Sites
- Continue enhancement of Old Woodland Sites.
- Protection of Hen Harrier nesting sites and Merlin habitats
- Continue to work with Statutory Organisations in relation to designated species and habitats

3.6.1 Diversification of tree 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 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 felling. The introduction of LISS systems are very site specific and can only be achieved gradually and can take up to a rotation length to complete. Currently 13% of the productive area of the BAU, is managed under LISS.

Sites on Coillte Estate managed under LISS include

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 Northwest BAU, Coillte aims to maintain and enhance the level of broadleaf trees in the BAU

3.6.3 Biodiversity

At present 23% of the Coillte land area in the Northwest BAU is designated and managed for biodiversity.

Principal methods of retaining biodiversity in the BAU will include:

- Retention of Old Woodland Sites (OWS) 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 2,008 ha identified as old woodland. This represents 2% of the Coillte land in the Northwest BAU or 7.6% 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, and reviewing all sites that received a good rating from ecologists. The results of these assessments determine future management and restocking species.
- Continuing the introduction of riparian buffer zones Given the overwhelming occurrence of streams and waterways in the forests in this BAU, 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.
- Retaining dead wood in all forests managed by Coillte is policy, where 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 a forest and 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 (biodiversity areas 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. Coillte also record deadwood both fallen and standing after harvesting events and when completing 4 year old crop assessments. Below are figures for the period 2019-2021. Figure for 2016-2018 can be made available upon request.

Standing Deadwood

High Forest Area (ha)	No Plots Measured	Area of plots measured Sample (ha)	Representative population measured (ha)	% of population measured	Av deadwood vol measured across the population (m3/ha)	Tot Vol in the Population (m3)	Av BAU Vol per ha (m3/ha)
76,588	1,621	64.84	18,505	0.35%	25.61	473,913	6.19

Fallen Deadwood

Av Annual Vol (m3)	High Forest Area (ha)	Av Annual Vol across BAU (m3/ha)*	Av Vol across BAU (m3/ha)	Target Vol (m3/ha)
46,715	76,588	0.61	4.88	4

*(Average Annual Volume figures are based on an average of 3 years)

- Carrying out survey and monitoring of important species and habitats, and of water quality to ensure their protection and enhancement, where possible.
- 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
- 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.

Key Objective 8

In the Northwest 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 and OHSAS 18001 Occupational Health and Safety Standard. Coillte are also committed to energy efficiency and in 2021 successfully achieved ISO 50001 certification status for its energy management systems.

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. While the disease has not been detected in this BAU as yet, it will have an impact on species

selection when planning landscape design.

Given the overwhelming occurrence of streams and waterways in the forests in this BAU, 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 Policy on water protection and water monitoring is outlined in "Environmental Risk Assessment (ERA) Procedure for Site Operations". This document details our approach to minimising the impacts of forest operations on water quality. We also ensure compliance with the Forest Service's Code of Best Forest Practice, which includes a series of standards and guidelines.

Through the implementation of Environmental Risk Assessment (ERA) and Appropriate Assessment (as per the EU Habitats Directive), the most sensitive sites are identified and appropriate management measures above and beyond what is routinely adopted are recorded and implemented during the course of the forest operations.

Forestry operations go through an ERA which is supplemented by AA processes and identifies any potential impacts on Qualifying Interests (QIs) of European sites within the Zone of Influence of the project site (e.g. due to a decline in water quality) and identifies appropriate measures that should be applied. Any mitigations required to protect QIs are clearly stated in Natura Impact Statements produced as part of the AA process and are listed on the Appropriate Assessment Determination (AAD) produced by DAFM for licenced activities. AA reports are produced by ecologists who consult with the Environment Team in relation to the highly sensitive sites that are identified by the ERA process.

Amongst the suite of measures that can be applied to protect water quality, one of the most important is the establishment of setbacks along aquatic zones within the forest. If not already in place from the time the forest was initially planted, a naturally vegetated setback should be established either at thinning or clearfell and restock stage. As stated above, many of the measures that are applied are standard measures (DAFM 2019) designed to protect water quality. Additional measures are applied as required depending on the nature of the forestry operations, site characteristics and sensitivity of the receptors.

For activities that might impact on highly sensitive species such as freshwater pearl mussel (FPM), measures applied may include increased setbacks along aquatic zones which are hydrologically linked to FPM populations and planting of small groups of native broadleaves. The width of the setback depends on proximity to the FPM population (10-40m or more). Timing restrictions for works and/or weather conditions under which works should take place may also apply, again depending on the proximity to the FPM. Measures to be applied and licence conditions appear in the site packs issued to all contractors so that they are aware of additional measures that must be taken to protect water quality.

In order to ensure there is maximum protection for water quality in highly sensitive catchments, BAU6 are piloting a catchment management approach to planning forestry operations in or near Top8 FPM catchments. In some catchments, drain blocking and bog restoration may be appropriate, not restocking (enlarged set back zones) and/or destocking altogether. The potential for any of these options can only be made on a case-by-case basis following an ecological and in some cases hydrological survey. A key focus should be ensuring no significant impact on any Qualifying Interests and balancing actions with carbon neutralisation requirements.

Other measures to protect water quality include the restriction of when operations can occur in the year, the provision of silt traps, the minimisation of machinery movement in the setbacks and exclusion zones, extraction route layout and use of brash and the design and location of temporary bridging over watercourses within the operations site. The measures to be applied are set out in the Appropriate Assessment reports produced for the operations which are the site packs. They are based on the

characteristics of the site, nature of the proposed operations, environmental and ecological sensitivities of the surrounding area.

To address the risk of oil spillages from forest machinery, a pollution control plan is included in the Site 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 watercourses 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 2.8 is carried out. In addition, long term fixed sampling sites on selected river(s) has been established in the BAU. The purpose of this sampling is to determine the cumulative impact of forests and associated forest practices have on water quality.

In highly sensitive catchments, other land use management options may be considered to protect water quality e.g. rewilding and/or bog restoration. Bog restoration is appropriate where there is potential for restoration i.e. sites on deep peat where it is possible to raise the water table and re-wet the bog through low impact interventions such as drain blocking and removing trees. Bog restoration has potential benefits for water quality, biodiversity and carbon sequestration.

Rewilding may be more appropriate in other areas which would require high impact interventions to achieve bog restoration e.g. cutover bog or plantation forest on cutover bog. Rewilding of existing plantation forests involves actions such as respacing to open up the canopy and promote development of the ground flora, and species diversification of the canopy, creating wide, vegetated setbacks (buffer zones) along rivers and streams, and planting native trees and shrubs where appropriate. Rewilding has potential benefits for enhancing natural and semi-natural habitats, as well as protecting water quality.

Finally, as well as complying with regulatory requirements, the BAU when planning forest operations in sensitive landscapes consults with the relevant regulatory, statutory and interested stakeholders on the topic of water, including the National Parks, Wildlife Service, LAWPRO, the Inland Fisheries Ireland, and Co. Councils

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. When pesticides are required, only those approved as safe 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 of Coillte's operators are fully trained in health and safety and environmental aspects of the use of chemicals. We erect notices to inform the public where the chemicals have been sprayed. The chemicals are always applied manually directly to the base of trees and away from watercourses and other sensitive natural features. 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.

During the previous plan period 2016-2020, the insecticide used to control the weevil was cypermethrin (10% w/w), otherwise known as Forester, which was used under derogation from FSC® (details available upon request). In 2019, use of cypermethrin ceased and was replaced with a chemical called acetamiprid (20% w/w), commercially known as Gazelle SG or Ceta which is approved by the PRCD for use in plant pre-treatment and top-up spraying applications in Ireland.

The figures below refer to cypermethrin use nationally during 2016-2020 as referenced in Appendix IV.

					Planting Hectares Previous 4 Years					
		Reporting Year	Cypermenthin (Ltrs)	Cypermethrin KGs A.I.	2013-2016	2014-2017	2015-2018	2016-2019	KGs A.I Planted hectares	% Reduction v 2016 Baseline
Derogation Baseline Year		2016	6,264	626.4	26,292				0.023824738	
	Year 1	2017	5,765	576.5		28,305			0.020367426	15%
	Year 2	2018	4,798	479.8			27,297		0.017577023	26%
	Year 3	2019	-	-				32,906	0	100%
	Year 4	2020	-	-				0	0	0%
Expired	Year 5	2021	-	-					0	0%

An ESRA Environmental and Social Risk Assessment (ESRA) is intended to inform the site operational plans, site specific risks, and adoption of appropriate mitigation measures. For each chemical used we complete an ESRA. 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 in the form of a licence before the operation may proceed. These licences go through the Appropriate Assessment (AA) process which identifies any potential impacts on Qualifying Interests (QIs) and identifies appropriate measures that should be applied. This requires the submission of detailed plans and consultation and agreement from the County Council, Inland Fisheries Ireland and NPWS. Adherence to the Forest Service requirements 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 who have registered with Coillte. Coillte carries out an annual update of our stakeholder register to ensure our records are as accurate as possible;
- Coillte welcomes 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 may be contacted directly at info@coillte.ie

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 the principles sustainable forest management including 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: resource planning, timber harvesting and replanting, 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
- Notices erected at entrances to recreation sites
- consultation via Coillte's website
- emails or letters to our listed stakeholders
- BAU annual 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 clear felling. 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 and assigned to the relevant BAU or business area for consideration, response and possible incorporation into our plans.

A summary 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 are detailed below.

Incorporation of changes to all Five Year Forest Plans, responses following consideration of consultation submissions	
Section reference in plan	Detail incorporated
Foreword	In order to align our Forest Plans with current company strategy and create awareness this section was updated to include the following "In practicing sustainable forest management Coillte's aim is to develop its forests in a way that is environmentally, socially and economically sustainable, and to deliver the multiple benefits from our forests for climate, nature, wood and people"
1.1 Coillte	In response to biodiversity being raised as an issue in many stakeholder submissions during both phases of public consultation a paragraph was added headed 'Nature

	Conservation and Biodiversity' which gives a summary of our ongoing work in these areas.
1.2 Renewable energy	This section was updated to inform stakeholders about Coillte's joint venture company with ESB, namely FuturEnergy Ireland (FEI).
1.4.1 Trees, Carbon and Climate Change	As climate change and carbon storage were topics raised by many individuals, groups, NGO's (Mountaineering Ireland, Irish Water, Inland Fisheries Ireland) section 1.4.1 has been added to our plans providing useful information on how well managed forests have a triple benefit in combating climate change. Please refer to this section for details.
1.4.2	Details of our not-for-profit branch of Coillte, Coillte Nature has been added along with a link to further information on our website. Provision of this information goes towards providing details of our biodiversity and restoration work as requested and acknowledged by stakeholders during both phases of public consultation
1.5 Meeting external challenges, constraints and opportunities	This section was expanded to include sub-sections with information specific to regulatory requirements, pests and diseases, societal expectations, dumping and forest fires. Submissions received raised dumping as a major concerns, especially in recreation areas. Also, there is an expectation in many areas for enhanced and well maintained recreation areas and Coillte have committed to engaging and working with forums in various counties. Also, as dumping is an ongoing issue that requires a lot of resources statistics have been included to demonstrate the negative financial impact on our business.
2.5 Biodiversity and high conservation value forests (HCVF) within the Northwest BAU – Update 1	Text in this section was reviewed an updated to reflect our work in relation to BioClass which is a science-based procedure for assessing the ecological value of biodiversity areas within the Coillte estate.
2.5 Biodiversity and high conservation value forests (HCVF) within the Northwest BAU – Update 2	Submissions by Stakeholders Old Woodland Sites (OWS) – During Phase 1 of public consultation 330+ submissions were received in relation to OWS. Relevant information was provided in our response to each stakeholder and updated text has been added to Section 2.5 which sets out our policy in relation to OWS.
2.9 Water Quality and Protection in the Northwest BAU	This section was revised to include updated information about measures taken to handle forest operations in proximity to waterways. Also, as required, and referred to in submissions received by individual stakeholders, Irish Water and the Marine Institute this section now includes reference to our catchments and sub-catchments list with access via a link to all relevant maps
2.10 Forest Management Issues	In response to concerns raised by stakeholders in submissions and through the contact page on our website during the period of consultation, information about measures being taken to control the illegal use of motorised vehicles on our lands has been included.
3.2 The Forest Resource and Wood Production – Update 1	In response to several queries relating to our felling plans, and to ensure that all those who refer to our plans are fully informed, the following text has been added to the last paragraph of this section *'Coillte's felling plans are also made available to the public via Coillte's online mapviewer hosted on the Coillte website here and updates to these plans are notified to registered stakeholders on an annual basis. If you wish to register as a stakeholder which ensures you are notified please refer to the contact page on our website for further information.'*
3.2 The Forest Resource and Wood Production – Update 2	To provide clarification, as requested by an individual stakeholder, Key Objective 4 was re-worded in all plans to read as follows ***"In _____ BAU, Coillte will continue to manage its ___ No Farm Partnerships*** *according to the principles of sustainable forest management"*

3.3.1 Renewable Energy Projects	In order to ensure provision of up-to-date information to stakeholders as agreed during consultation on previous strategic plans text regarding the number of planning permitted projects and proposed projects that concern the Coillte estate was updated and is accurate as of February 2022.
3.6.3 Biodiversity	Retaining deadwood – Actual figures for the past three years (average) for fallen and standing deadwood are provided
4.2 Water Protection	This section has been reviewed and updated to reflect Coillte's Policy and procedures in relation to Water Protection.
4.3 Reducing use of Chemicals	This section has been updated to inform stakeholders that use of Cypermethrin as referred to in previous plans has ceased. A breakdown of its use during the previous plan period has been provided as referenced in Appendix IV – Monitoring. Also, information about ESRA Environmental and Social Risk Assessment (ESRA) has been added and text under the heading 'Fertilisers' has been reviewed and updated.
Incorporation of changes, responses following consideration of consultation submissions specific to BAU 1 – Midlands The detail in the table below outlines incorporation of changes, following consideration of consultation submissions received from stakeholders/public during Coillte's public consultation stages (scoping and draft plan) carried out during 2020 and 2021 for the Northwest BAU Five Year Forest Plan.	
4.2 Water Protection	Submission by Stakeholders The Marine Institute acknowledged the close work relationship between them and the Northwest BAU and highlighted the importance of research and its outputs Response by Coillte We were pleased to have received a submission from the Marine Institute. Coillte will continue to work closely with them and all other relevant parties in relation to water protection within the BAU.
2.3 Community, Recreation and Tourism Facilities in the Northwest	Submission by Stakeholders Donegal County Council acknowledged Coillte's work in relation to the development, enhancement and maintenance of the County's recreation facilities in partnership with local stakeholders, including Local Authorities and Community Groups. They asked that this work continues and welcome the opportunity to explore further recreational use of the County's forests and ask that the Trail Gazors project be included in this collaboration. Response by Coillte We were pleased to have received a submission from Donegal County Council and have reviewed the matters raised. We currently actively whit them in relation to recreation development and look forward to continuing our positive relations. We are happy to engage with the Trail Gazors Project through this forum to support the continued provision of recreation facilities in the County.
2.3 Community, Recreation and Tourism Facilities in the Northwest	Submission by Stakeholders Ballisodare Community Group consulted with us in relation to recreation facilities at Union Wood. Response by Coillte Coillte will continue to maintain and enhance our recreation facilities in Co Sligo in partnership with Sligo Co Co. We will continue to engage with Ballisodare CG via this forum to improve and enhance facilities at Union Wood, subject to availability of funding.
3.2 The Forest Resource and Wood Production	Submission by Stakeholders Donegal Co Council's submission requested engagement prior to operational activities in the County Response by Coillte Coillte have a positive relationship with Donegal Co Co and will continue to proactively engage with them in relation to our operational plans both annually and in advance of specific operations

2.3 Community, Recreation and Tourism Facilities in the Northwest	Submission by Stakeholders A number of stakeholder submissions related to Coillte's plans for Brackloon woods, particularly in relation to biodiversity protection and recreational enhancements. Response by Coillte We endeavour to continuously improve areas we have designated for recreation and work closely with local community groups to maintain and enhance these areas while also ensuring they are managed sustainably. We look forward to engaging with all interested parties in relation to our plans for this area in the future.
2.10 Forest Management Issues	Submission by Stakeholders An individual stakeholder asked that bins be provided at Knockranny Forest Response by Coillte Coillte provided information about our 'Leave no Trace' policy which sets out why we do not provide bins at our forests.
4.4 Sharing our Plans	Submission by Stakeholders An individual stakeholder raised many issues and submitted a number of questions in relation to topics such as management plans for specific areas, practices, regulatory requirements, etc. Response by Coillte Information on many the topics raised is publicly available via our website and BAU plans. We are happy to engage with all stakeholders in relation to specific issues on an ongoing basis and are easily contactable via our website.

4.5 Monitoring and Evaluation

Coillte continues to monitor the achievement of its objectives and targets using the proforma set out in Appendix IV. Please refer to this Appendix for results of monitoring for the period 2016-2020.

Appendix I - Summary of Archaeological Sites in Northwest BAU

BAU	Type of Monument	No. In BAU	SMRS Number *
B1	Anomalous stone group	1	SL019-175----
B1	Barrow - mound barrow	1	SL031-018001-
B1	Barrow - ring-barrow	2	SL031-048----, SL038-005----
B1	Bawn	2	DG094-006001-, MA110-004001-
B1	Booley hut	2	DG085-006001-, DG085-006002-
B1	Building	4	SL014-076044-, SL014-076045-, SL014-076046-, SL014-076052-
B1	Bullaun stone	1	SL015-059003-
B1	Burial ground	1	MA100-152001-
B1	Burnt mound	3	MA038-205----, MA038-206----, MA038-207----
B1	Cairn - boundary cairn	3	SL019-171001-, SL019-171002-, SL019-172----
B1	Cairn - burial cairn	1	MA046-004001-
B1	Cairn - unclassified	10	DG037-013002-, DG045-034----, DG087-010----, MA030-054----, MA038-099001-, MA047-031----, SL014-076051-, SL019-174002-, SL021-007----, SL028-001----
B1	Castle - tower house	2	DG094-006----, MA110-004----
B1	Castle - unclassified	1	SL015-090001-
B1	Cave	2	SL014-288----, SL014-290----
B1	Church	3	DG094-002----, MA100-152002-, SL008-009----
B1	Cist	4	DG078-042----, MA046-004002-, MA046-004003-, MA046-004004-
B1	Clochan	1	DG085-004----
B1	Crannog	10	MA013-003----, MA046-007----, MA078-013----, MA100-089----, MA109-018----, MA109-019----, MA110-003----, SL020-169----, SL020-269----, SL025-007----
B1	Cremation pit	1	MA046-004013-
B1	Earthwork	4	MA030-053002-, MA100-152003-, SL014-075----, SL020-205----
B1	Enclosure	29	DG026-044----, DG077-011----, DG092-019----, LE002-031----, LE002-045----, LE007-068----, LE010-024----, MA007-016019-, MA031-003----, MA036-004----, MA037-005001-, MA047-038----, MA048-064----, MA060-032----, MA061-035001-, MA070-190----, MA100-087----, MA100-160001-, MA100-160002-, MA100-160003-, MA100-160004-, MA100-160005-, SL015-056----, SL015-057001-, SL015-125----, SL017-047----, SL019-201001-, SL031-016----, SL032-187----
B1	Field boundary	2	MA038-099002-, SL019-201002-
B1	Field system	1	SL031-017001-
B1	Fulacht fia	3	MA061-036001-, MA061-036002-, MA070-107----
B1	Graveyard	1	SL036-063----

B1	Hilltop enclosure	1	SL032-169----
B1	House - 16th/17th century	1	DG078-014----
B1	House - 18th/19th century	1	SL019-176002-
B1	House - early medieval	4	MA046-004009-, MA046-004010-, MA046-004014-, SL008-025001-
B1	House - indeterminate date	2	MA061-031003-, MA061-035002-
B1	House - Neolithic	1	MA007-016018-
B1	Hut site	5	DG026-013002-, DG085-002----, SL015-059004-, SL027-083----, SL032-176----
B1	Kiln	1	MA046-004011-
B1	Mass-rock	1	LE007-093----
B1	Megalithic structure	4	DG036-033----, DG077-025----, MA030-053001-, MA103-054----
B1	Megalithic tomb - court tomb	9	DG101-007----, MA006-027----, MA007-016006-, MA020-001----, MA021-044----, MA028-001----, SL008-011----, SL009-051----, SL015-050----
B1	Megalithic tomb - passage tomb	6	SL014-088----, SL019-177----, SL019-258----, SL020-128----, SL020-274----, SL020-275----
B1	Megalithic tomb - portal tomb	1	DG077-021----
B1	Megalithic tomb - unclassified	2	DG026-012----, DG069-030----
B1	Megalithic tomb - wedge tomb	6	DG077-024----, DG098-003----, MA031-005----, MA048-067----, SL009-048----, SL009-050----
B1	Moated site	1	SL037-047----
B1	Mound	3	DG037-013003-, DG052-023----, MA030-037----
B1	Penal Mass station	2	DG037-024----, DG052-033----
B1	Pit-burial	2	MA046-004005-, MA046-004006-
B1	Prehistoric site - lithic scatter	1	SL014-277----
B1	Promontory fort - inland	3	DG092-017----, SL015-090002-, SL021-001----
B1	Redundant record	17	DG044-010----, LE002-030----, LE010-026----, LE010-027----, MA021-090----, MA021-091----, MA021-092----, MA046-004012-, RO003-028----, SL005-184----, SL015-048----, SL021-108----, SL027-166----, SL032-168----, SL032-170----, SL032-173----, SL032-174----
B1	Ringfort - cashel	21	DG026-007----, DG026-008001-, DG026-013001-, DG026-016001-, DG027-026----, DG077-014----, DG078-039001-, DG101-008----, LE010-006----, LE010-025----, MA047-037----, MA061-034----, MA087-047001-, SL005-118001-, SL006-001----, SL015-059001-, SL020-206----, SL025-013----, SL025-042----, SL031-017----, SL031-038001-

B1	Ringfort - rath	33	DG097-035----, LE002-002----, LE003-029----, LE006-004----, LE010-004----, LE015-018----, LE015-079----, MA040-033----, MA046-004007-, MA069-008----, MA079-026----, SL008-013----, SL008-025----, SL008-064----, SL014-084----, SL014-085----, SL020-172----, SL021-081----, SL025-021----, SL027-008----, SL027-009----, SL027-059----, SL027-113----, SL027-146----, SL027-147----, SL031-018002-, SL032-175----, SL034-017----, SL034-018----, SL034-037----, SL034-038----, SL034-039----, SL037-002001-
B1	Ringfort - unclassified	9	DG026-014----, DG075-001----, DG078-037----, LE007-006----, LE010-028----, SL008-005----, SL008-010----, SL009-022----, SL015-057002-
B1	Ritual site - holy well	5	DG052-003----, DG052-014----, MA046-002001-, MA046-002002-, MA073-003----
B1	Ritual site - holy/saint's stone	2	DG101-010----, DG101-011----
B1	Road - road/trackway	4	DG101-003----, MA036-003----, MA072-099----, SL045-002----
B1	Rock art	2	DG018-032----, DG062-019----
B1	Settlement cluster	1	DG085-006003-
B1	Souterrain	8	DG078-039----, MA046-004008-, MA061-031002-, MA087-047002-, SL005-118002-, SL015-059002-, SL031-038002-, SL037-002002-
B1	Standing stone	12	DG039-001----, DG045-013----, DG052-032----, DG062-018----, DG076-002----, DG077-027----, DG077-028----, DG087-001----, DG092-007----, MA021-095----, SL014-275----, SL014-293----
B1	Stone circle	1	DG037-013001-
B1	Stone row	2	MA020-002----, SL020-170----
B1	Structure	4	DG026-008002-, DG026-008003-, DG026-016002-, MA061-037----
B1	Sweathouse	1	SL035-123----

* The SMRS numbers listed in the above table can be used to view and search for these monuments using The National Monuments Service Mapviewer available at www.archaeology.ie. When the number of monument types exceeds 10 only the first 10 SMRS numbers are listed.

Appendix II - Habitats and Species in Northwest BAU

(Information published in this appendix may be changed / updated during the plan period)

Non-Forest Habitats (Including bog and wetland habitats)

Main Properties	Habitat Quality	Management Strategy 2021-2025	Issues to be Addressed
Blanket Bog (PB2), Wet Heath (HH3) and Dry Heath (HH1)			
Property: Carrick Barr (HCV) County: Donegal Protected Site: Dunragh Loughs/Pettigo Plateau SAC	LIFE Site	Restore bog	Fell to waste, ring barking, block drains, monitor.
Property: Doon County: Sligo Protected Site: N/A	Extensive area	Maintain heath	To control grazing
Property: Derry (HCV) County: Mayo Protected Site: Bellacorick Bog Complex SAC and Bellacorick Bog Complex pNHA	Conifer plantation removed and bog allowed to regenerate. Drain blocking completed under EU funded Life project	Monitor for natural regeneration of Lodgepole pine conifers and trespass	Ongoing monitoring and associated cost of protection.
Property: Sessuecommon (HCV) County: Sligo Protected Site: Ox Mountains Bogs SAC and River Moy SAC	Maintain health and rare species	To control grazing and follow SAC Guidelines	Ongoing monitoring and control grazing.
Property: Doonee (HCV) County: Sligo Protected Site: Lough Gill SAC	Good flora/rare species	Follow SAC Guidelines	Control non-native invasive tree/shrub species and deer
Property: Rathcarrick (HCV) County: Sligo Protected Site: Knocknarea Mountain and Glen pNHA	Rare flora	Follow SAC Guidelines	Control grazing
Property: Slishwood (HCV) County: Sligo Protected Site: Lough Gill SAC and Lough Gill pNHA	Moderate quality	Follow SAC Guidelines	Control non-native invasive tree/shrub species
Dystrophic lakes (FL1)			
Property: Sessuecommon (HCV) County: Sligo Protected Site: Ox Mountains Bogs SAC and River Moy SAC	Rare Species	Follow SAC Guidelines	Protect lakes
Acid oligotrophic lakes (FL2)			

Property: Glencar (HCV) County: Leitrim Protected Site: Ben Bulben, Gleniff and Glenade Complex SAC and Ben Bulben, Gleniff And Glenade Complex pNHA	Diverse Flora/Fauna	Protect riparian habitat	Maintain zone of carr woodland
Property: Ballygawley County: Sligo Protected Site: Ballygawley Lough pNHA	Rare flora	Maintain lake habitat	Maintain oligotrophic standing water habitat
Eroding upland rivers (FW1)			
Property: Sheskin (HCV) County: Mayo Protected Site: Bellacorick Bog Complex SAC, Bellacorick Bog Complex pNHA, Glenamoy Bog Complex SAC, Glenamoy Bog Complex pNHA, Slieve Fyagh Bog SAC, Slieve Fyagh Bog pNHA, Carrowmore Lake Complex SAC and Carrowmore Lake Complex pNHA	Owenmore catchment. Numerous small rivers flow through it.	Create riparian habitat of higher conservation value. Allow development of open bog and deciduous scrub habitats.	The survival of broadleaved species in such areas is often poor. Grazing of sheep may also be a problem.
Depositing lowland rivers (FW2)			
Property: Killerry (HCV) County: Sligo Protected Site: Lough Gill SAC and Lough Gill pNHA	Diverse flora	Restore Native woodland	Maintain Riparian habitat
Exposed calcareous rock (ER2)			
Property: Crumpaun (HCV) County: Leitrim Protected Site: Ben Bulben, Gleniff and Glenade Complex SAC, Sligo/Leitrim Uplands SPA, and Ben Bulben, Gleniff and Glenade Complex	Excellent Flora	Follow SAC Guidelines	Restore Riparian habitat
Property: Glencar (HCV) County: Leitrim Protected Site: Ben Bulben, Gleniff and Glenade Complex SAC and Ben Bulben, Gleniff And Glenade Complex pNHA	Excellent Flora	Follow SAC Guidelines	Restore Riparian habitat
Dry humid acid grassland (GS3)			
Property: Crumpaun (HCV) County: Leitrim Protected Site: Ben Bulben, Gleniff and Glenade	Grassland habitats	Follow SAC Guidelines	Maintain semi-natural grassland habitat

Complex SAC, Sligo/Leitrim Uplands SPA, and Ben Bulben, Gleniff and Glenade Complex			
Property: Gleniff (HCV) County: Sligo Protected Site: Ben Bulben, Gleniff and Glenade Complex SAC, Ben Bulben, Gleniff And Glenade Complex pNHA,	Extensive area	Maintain grassland	Control non-native invasive species
Sand Dunes			
Property: Murvagh (HCV) County: Donegal Protected Site: Donegal Bay (Murvagh) SAC, Donegal Bay SPA and Donegal Bay (Murvagh) pNHA	Large area of dunes and coastal sand. Mature Corsican Pine Woodland Area contains 50.6 ha of salt marsh	Monitor and maintain Pine Monitor	Control Grazing Continuous cover strategy for CP

Forest habitats (Native and Mixed Woodlands)

Main Properties	Habitat Quality	Management Strategy 2021-2025	Issues to be Addressed
Oak-birch-holly Woodland (WN1)			
Property: Killerry (HCV) County: Sligo Protected Site: Lough Gill SAC and Lough Gill pNHA	Good flora/rare species	Restore native woodland (NW)	Monitoring of deer fence
Property: Slishwood (HCV) County: Sligo Protected Site: Lough Gill SAC and Lough Gill pNHA	Good flora/rare species	Restore NW	Retain Scots pine
Property: Hazelwood (HCV) County: Sligo Protected Site: Lough Gill SAC and Lough Gill pNHA	Rare fauna/flora	Restore NW	Control Nat. Regeneration of beech
Property: Brackloon (HCV) County: Mayo Protected Site: Brackloon Woods SAC and Brackloon Woods pNHA	This is an important area of old native oak woodland, which has been well-studied recently.	Improve the quality of the oak-birch-holly woodland habitat.	The costs of ongoing restoration and public access
Property: Laughil (HCV) County: Mayo Protected Site: River Moy SAC and Lough Conn And Lough Cullin pNHA	This is an important area of old oak woodland which is included in a Forest Service funded Native Woodland Scheme.	Area re-established as of oak-birch-holly woodland habitat.	Goat trespass and control of natural regeneration of exotics needs attention into the future. Damaged by fire in 2010.
Wet Oak – Ash – Hazel woodland (WN4)			

Property: Hazelwood (HCV) County: Sligo Protected Site: Lough Gill SAC and Lough Gill pNHA	Extensive Area	Restore NW	Control invasive species
Property: Derrinrush (HCV) County: Mayo Protected Site: Lough Carra/Mask Complex SAC and Lough Carra/Mask Complex pNHA	This is an old woodland site which supports one of the best examples of the habitat in the BAU.	Increase the quality and area of the habitat over time.	Deer are present and may be a threat to young deciduous woodland.
Mixed Woodland (WD1)			
Property: Glencar (HCV) County: Leitrim Protected Site: Ben Bulben, Gleniff and Glenade Complex SAC and Ben Bulben, Gleniff And Glenade Complex pNHA	Excellent Flora	Maintain mixed woodland	Increase native woodland
Property: Hazelwood (HCV) County: Sligo Protected Site: Lough Gill SAC and Lough Gill pNHA	Rare flora and fauna	Maintain mixed woodland	Control laurel/ Rhododendron
Mixed broadleaved/conifer Woodland (WD2, WD3)			
Property: Slishwood (HCV) County: Sligo Protected Site: Lough Gill SAC and Lough Gill pNHA	Good flora	Restore and increase NW	Retain Scots Pine

Species

Protected or rare species in Northwest BAU

Catchments	Habitat quality	Management strategy	Management 2021-2025	Issues to be addressed
Freshwater pearl mussel (*Margaritifera margaritifera*) Regarded by International Union for the Conservation of Nature and Natural Resources (IUCN) as 'facing an extremely high risk of extinction in the wild in the immediate future'. Also listed in EU Habitats Directive, Annex II.				
Clady Eske Leannan Owencarrow Owenea Newport Bundorragha	All properties falling within these catchments will be managed to the "Forestry and Freshwater Pearl Mussel Requirements"	Prevent enrichment of river waters by improving the ecological quality of riparian habitats.	Remove conifers and establish riparian scrub over time with the agreement of various regulatory bodies.	Agreement of National Parks and Wildlife Service and fisheries board. The cost of riparian restoration.
Lesser horseshoe bat (*Rhinolophus hipposidero)* Regarded by International Union for the Conservation of Nature and Natural Resources (IUCN) as 'facing a high risk of extinction in the wild in the medium-term future'. Also listed in EU Habitats Directive, Annex II.				
Moore hall, Towerhill	Supports the largest colony of the species in the BAU– both buildings and woodland are important.	Protect roosts and maintain suitable foraging habitat for the species.	No tree felling should be take place within a 20 metre radius of the roost. Low impact silvicultural methods such as continuous cover forestry be practiced 20 and	Costs of building and maintaining roosts.
Sword-leaved helleborine Listed in EU Habitats Directive, Annex II				
Brackloon	A population of this very rare and protected orchid species has been recorded from this site. Probably the only site in the BAU.	Maintain and increase (if possible) the population of the species.	Survey the current distribution and population size of the species. Manage the woodland habitat in the immediate vicinity of the species in order to increase the	
Marsh fern Listed in EU Habitats Directive, Annex II				
Creagh	This wetland fern species is considered to be rare and declining due to drainage of its habitat.	Maintain and increase (if possible) the population of the species.	Survey the current distribution and population size of the species. Ensure that no habitat disturbance, i.e. drainage, occurs in the vicinity of the population(s)	

In terms of species, notable species identified in the BAUs forests are listed below

Key:

Published National Red Lists	
RED STATUS- Ireland Red Lists using IUCN (2001)	BoCCI-Birds of Conservation Concern in Ireland 2020-2026
- RE Regionally Extinct - CR Critically Endangered - EN Endangered - VU Vulnerable - NT Near threatened - LC least concern - dd data deficient - na not assessed	- Red High conservation concern - Amber Medium conservation concern - Green Low conservation concern

SPECIES	RED STATUS	BoCCI
Lesser Horseshoe Bat *(Rhinolophus hipposideros)*	LC	
Marsh Fritillary *(Euphydryas aurinia)*	VU	
White-clawed crayfish *(Austropotamobius pallipes)*	na	
Freshwater pearl mussel *(Margaritifera margaritifera)*	CR	
Pine Marten *(Martes martes)*	LC	
Badger *(Meles meles)*	LC	
Red Squirrel *(Sciurus vulgaris)*	LC	
Otter *(Lutra lutra)*	LC	
Hen Harrier *(Circus cyaneus)*		Amber
Red Grouse *(Lagopus lagopus hibernicus)*		Red
Golden Plover *(Pluvialis apricaria)*		
St Dabeoc's Heath *(Daboecia cantabrica)*	LC	
Birds' nest orchid *(Neottia nidus-avis)*	LC	
Marsh Fern *(Thelypteris palustris)*	NT	
Lesser Twayblade *(Listera cordata)*	LC	
St Patrick's cabbage *(Saxifraga spathularis)*	LC	

Buckthorn *(Rhamnus cathartica)*	LC	
Slender Cottongrass *(Eriophorum gracile)*	NT	
Bearberry *(Arctostaphylos uva-ursi)*	LC	
Narrow-leaved Hellborine *(Cephalanthera longifolia)*	VU	
Bog sedge *(Carex limosa)*	LC	
Bog cranberry *(Vaccinium oxycoccos)*	LC	
Greater spearwort *(Ranunculus lingua)*	LC	
Brown Beak rush *(Rhynchospora fusca)*	NT	
Red-throated Diver *(Gavia stellata)*		Amber
Merlin *(Falco columbarius)*		Amber
Peregrine Falcon *(Falco peregrinus)*		Green
Ring Ouzel *(Turdus torquatus)*		Red
Golden Eagle *(Aquila chrysaetos)*		Red
Chough *(Pyrrhocorax pyrrhocorax)*		Amber
Small Cranberry *(Vaccinium oxycoccos)*	LC	
Yellow Mountain saxifrage *(Saxifraga aizoides)*	LC	
Hoary Whitlow grass *(Draba incana)*	LC	
Small White orchid *(Pseudorchis albida)*	VU	
Northern Rock Cress *(Arabidopsis petraea)*	VU	
Chickweed *(Stellaria media)*	LC	
Tea-leaved Willow *(Salix phylicifolia)*	EN	
Alpine Saxifrage *(Saxifraga nivalis)*	CR	
Alpine Bistort *(Persicaria vivipara)*	VU	
Moss Campion *(Silene acaulis)*	LC	
Common Toothwort *(Lathraea squamaria)*	LC	
Lesser Butterfly Orchid *(Platanthera bifolia)*	LC	
Shade Horsetail *(Equisetum pratense)*	LC	
Intermediate Wintertgreen *(Pyrola media)*	NT	
Alpine Saw-wort *(Saussurea alpina)*	VU	

Holly Fern *(Polystichum lonchitis)*	VU	
Alpine Meadow grass *(Poa alpina)*	EN	
Purple Saxifrage *(Saxifraga oppositifolia)*	LC	
Mossy Saxifrage *(Saxifraga hypnoides)*	LC	
Broadleaved Helleborine *(Epipactis helleborine)*	LC	
Lemon scented Fern *(Oreopteris limbosperma)*	LC	
Narrow Buckler-Fern *(Dryopteris carthusiana)*	LC	
Round leaved Wintergreen *(Pyrola rotundifolia)*	NT	
Lesser Twayblade *(Neottia cordata)*	LC	
Yellow Birds nest (*Hypopitys monotropa* Formerly known as *Monotropa hypopitys*)	NT	
Irish Lady's Tresses *(Spiranthes romanzoffiana)*	NT	
The Globe Flower *(Trollius europaeus)*	NT	

Appendix III – Recreation Facilities in the BAU

Location	Description
Ards Forest Park, Donegal	Walking trails, Nature trails, looped walks, picnic area, café during summer months
Drumboe Woods, Donegal	Walking trails, Nature trails, looped walks, picnic area.
Bonnyglen Wood, Donegal	Walking trails, picnic area, viewing points
Murvagh, Donegal	Picnic, Coastal walk
Drummonaghan Wood, Donegal	Walking Trails, viewing points, way-marked trails, picnic site
Woodquarter, Donegal	Picnic Site, Boat launch, walking trails, way-marked trails, viewing points, fishing platforms
Ballykeeran, Donegal	Walking trails, viewing points
Hazelwood, Co. Sligo	Picnic Site, Boat launch, Walking Trails, Viewing Points, EU Life Project Demonstration Site with outstanding views of Lough Gill
Dooney Rock, Co. Sligo	Walking trails, Viewing points, looped walks, picnic area.
Slishwood, Co. Sligo	Walking trails, Viewing points, looped walks, picnic area.
Deerpark, Co. Sligo	Walking trails, Viewing points, Way-marked ways, Historic buildings
Carns, Co. Sligo	Problems with dumping so car park had to be closed. The trails on this site were upgraded in 2014. Two loop walks were upgraded with trail head signage at both. This property is walking distance from Sligo town and newly developed sports complex at Cleveragh.
Gortarowey, Co. Sligo	Newly developed car park and trails including one to multi access standard. Work ongoing on providing two more looped walks in conjunction with Sligo Co Co with cross border funding for same.
Rathcarrick/Knocknarea, Co. Sligo	Newly developed walk from Strandhill village to the top of Knocknarea. Some of the most spectacular scenery is on Coillte property.
Drumharriff, Co. Donegal	Looped walking trail.
Union Wood, Co. Sligo	Walking trails, mountain bike course, viewing area on Union rock, picnic area and car parking.
Lissadell, Co. Sligo	Walking trail, beach, bird watching, picnic area.
Milltown Wood,, Co. Leitrim	There are a significant number of looped trails through these woods.

Appendix IV – BAU 1 Monitoring

BAU 1 – Monitoring 2016-2020		
Economic Parameters		
No	Parameter	Output
Establishment		
1	Afforestation (Hectares)	53
2	Restocking (Hectares)	6,342
3	Later Manuring Area Aerially Fertilised (Hectares)	200
Harvesting		
4	Clearfelled area (Hectares)	5,126
5	Thinning Area (Hectares)	4,294
Silvicultural Systems		
6	LISS*Areas including OWS** (Hectares)	4,614
Species Composition		
7	Primary species	49% area of BAU
8	Secondary species***	30% area of BAU
9	Broadleaves	9% area of BAU
10	Open Space	12% area of BAU
Chemicals		
11	Chemical usage (kgs active ingredient/ha)	Please refer to Section 4.3 for national figures
Land Transactions		
12	Area sold by BAU (Hectares)	370.14
Environmental Parameters		
No	Parameter	Output
Biodiversity		
13	Biodiversity area identified	23%
14	Biodiversity sites identified	17,648
15	Biodiversity management plans completed	14
16	Biodiversity features recorded	17,648
17	Deadwood: Standing	Please refer to Section 3.6.3
18	Deadwood: Fallen	Please refer to Section 3.6.3
19	Forest roads constructed	69,719 m
20	Forest road upgrades	177,988 m
Forest Health		
21	BAU Forest Health Survey - Results	8 sites showing damage
22	BAU Forest Health Survey - Actions	Filling In, Replanting, Tree Clearance
Abiotic Damage		
23	Fires – area damaged (Hectares)	729.59
24	Windthrow area (Hectares)	369.16
Deer Culls		
25	Deer Cull Returns	215
Social Parameters		
No	Parameter	Output
Cultural Heritage		
26	Protected archaeological monuments identified	397

Recreation		
27	No of Deer Licences Issued	59
28	Hunting (Game) Licences Issued	203
29	Recreation Licences Issued	614
30	Visitors to forest parks in BAU	1,058,372
Consultation		
31	Stakeholder Queries	432
Community		
32	Community partnerships	15
Health and Safety		
33	Dumping & Litter	Refer to Section 1.5.4

* Low Impact Silvicultural Systems

** Old Woodland Sites

***Secondary species are all other conifers outside of Sitka spruce, e.g: DF, LAR, LP, LPS, NS, OC, SP.

Appendix V – Forest Details

(A) Actual Volumes (m^3) for 2016-2020

BAU	2016	2017	2018	2019	2020	Grand Total
B1	333,944	388,991	350,372	412,141	159,454	1,644,902

(B) Forecast Volumes for 2021-2025

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
DL01 - Errigal	1,265	2,031	5,445	4,780	1,528	0	0	0	0	0	0	5	11	10	2	0
DL02 - Ards Forest Park	528	2,786	0	5,528	8,715	7,472	290	411	290	0	0	6	0	11	15	11
DL03 - Kilmacrennan	1,141	1,386	871	1,004	9,123	479	0	548	3,033	198	1,932	2	2	2	18	2
DL04 - Ramelton	812	3,201	9,634	0	10,976	733	1,435	1,647	1,821	2,324	3,963	6	19	0	18	2
DL05 - Rathmullan	707	4,529	1,733	4,627	588	3,217	653	357	698	1,437	877	9	3	11	1	9
DL06 - Swilly	1,453	14,480	11,326	14,437	11,185	3,355	1,025	989	0	452	253	30	23	27	22	7
DL07 - Foyle	1,390	2,994	7,865	8,650	8,552	19,071	0	466	390	255	0	6	19	18	15	36
DL08 - Lagan	436	0	3,317	0	6,755	1,297	0	1,017	1,202	2,219	892	0	6	0	14	6
DL09 - Convoy	1,210	12,217	5,045	2,251	12,067	5,144	1,263	2,195	1,491	1,872	4,113	23	14	5	26	12
DL10 - New Mills	1,134	390	7,699	4,144	8,049	6,043	2,895	1,439	2,591	1,199	2,889	1	17	9	20	12
DL11 - Gartan	658	4,955	4,939	5,088	2,075	3,227	1,499	123	284	554	628	9	11	10	4	8
DL12 - Meenirroy	2,091	16,415	3,488	3,405	541	1,105	0	275	27	10	1,702	35	8	7	1	2
DL13 - Lough Finn	716	0	3,820	0	0	2,826	0	0	0	0	0	0	8	0	0	7
DL14 - Gweebarra	1,217	3,367	1,471	2,506	6,424	2,287	105	87	80	0	73	7	3	5	10	4
DL15 - Glenties	1,601	6,471	2,746	6,156	3,943	8,672	0	0	68	0	296	16	6	12	6	13
DL16 - The Glens	1,500	6,316	6,790	1,775	2,136	3,319	556	0	409	0	0	13	16	5	4	10
DL17 - Reelan	1,447	6,138	2,924	4,900	941	4,396	514	6	661	0	6	15	6	11	3	8
DL18 - Cark	1,498	744	5,708	3,062	3,431	1,725	51	0	0	0	977	2	14	6	6	3
DL19 - Drumboe	1,179	5,976	10,560	4,148	9,637	4,637	1,874	2,056	1,274	3,867	1,910	13	23	10	20	12

DL20 - Killygordon	1,967	9,944	5,400	18,358	4,380	8,425	2,413	4,156	4,435	5,551	4,346	22	11	44	13	23
DL21 - Ballybofey	1,422	13,297	8,205	2,019	13,981	11,922	2,356	2,651	1,701	971	317	30	18	5	30	29
DL22 - Meencargagh	1,097	6,051	6,625	11,434	3,865	27,865	560	417	195	0	361	10	14	25	7	44
DL23 - Croaghnakern	630	1,769	0	2,538	0	0	0	0	0	0	0	4	0	5	0	0
DL24 - Lough Eske	2,088	7,240	10,907	9,357	8,997	17,809	673	2,251	725	2,038	2,107	13	21	23	17	34
DL25 - Brenter	1,847	11,056	11,822	17,825	8,618	10,906	2,651	2,804	556	1,645	947	23	24	38	17	26
DL26 - Killybegs	1,098	694	5,536	17,128	2,668	4,308	0	127	0	0	0	2	11	39	5	11
DL27 - Fintragh	1,117	2,079	4,597	3,189	4,392	139	0	0	0	0	0	4	9	7	7	0
DL28 - Laghey	371	0	2,275	0	0	3,972	131	1,400	0	0	481	0	4	0	0	13
DL29 - Croaghonagh	1,818	2,799	5,333	7,214	0	3,605	0	0	0	63	0	5	11	18	0	8
DL30 - Grousehall	1,239	9,785	22,641	24,655	13,833	14,029	483	816	348	1,244	67	22	60	56	35	37
DL31 - Lough Derg	2,875	20,009	19,148	23,169	9,011	7,546	250	848	613	0	550	43	43	52	17	16
DL32 - Meensheefin	969	2,705	1,483	9,661	8,783	10,869	0	0	0	0	0	5	3	17	20	27
DL33 - Ballintragh	486	0	1,721	3,139	0	1,863	35	0	35	580	0	0	3	6	0	4
DL34 - Murvagh	232	0	0	634	829	0	260	0	0	0	0	0	0	1	1	0
DL35 - Ballyshannon	892	3,348	6,688	1,916	2,095	375	0	0	47	377	739	5	13	4	4	1
DL36 - Pettigo	65	2,425	0	0	5,917	0	0	0	0	655	0	4	0	0	10	0
LM01 - Glenade	137	6,725	0	2,137	1,358	0	0	0	0	397	0	12	0	4	2	0
LM02 - Lough Melvin	501	0	7,623	2,598	3,312	4,888	158	0	2,375	1,534	438	0	15	6	8	7
LM04 - Bonet	1,094	10,010	0	5,639	5,732	12,785	805	1,763	1,405	1,121	1,672	17	0	14	8	22
LM05 - Glencar	347	5,657	36	2,729	9,606	2,474	96	0	86	77	412	10	0	5	13	3
MO01 - Glenamoy	1,811	1,310	1,242	2,835	1,477	1,988	0	0	0	0	0	3	3	7	2	3
MO02 - Ballycastle	3,211	0	1,973	4,722	3,859	4,550	280	502	108	0	0	0	5	12	8	10
MO03 - Carrowmorelacken	299	0	496	352	0	1,109	0	302	220	0	0	0	1	1	0	5
MO04 - Knockaunderry	67	0	0	0	6,684	0	1,438	0	0	0	0	0	0	0	25	0
MO05 - Shannettra	3,144	7,744	20,437	5,877	3,050	4,603	1,516	679	1,316	0	603	17	44	12	7	13
MO06 - Sheskin	4,519	1,282	11,978	10,811	7,696	9,675	550	173	0	0	0	2	27	22	18	19
MO07 - Erris	1,490	0	256	913	0	0	0	0	0	0	0	0	0	2	0	0
MO08 - Nephin	4,412	0	0	473	0	0	0	0	0	0	0	0	0	1	0	0

MO09 - Tristia	1,441	538	0	443	1,656	5,267	0	0	0	0	0	1	0	1	3	12
MO10 - Conn	780	0	0	333	378	3,523	0	484	0	12	502	0	0	1	1	4
MO11 - Bunnafinglas	806	10,988	2,380	0	1,680	1,767	347	196	0	0	0	22	4	0	4	5
MO12 - Swinford	596	369	5,590	3,835	2,003	10,213	506	1,836	328	236	331	1	16	10	6	27
MO13 - Charlestown	502	1,617	835	1,424	6,462	3,345	2,123	1,500	3,806	95	810	3	3	5	13	11
MO14 - Cloonakilliana	278	510	0	1,884	761	3,416	166	302	173	0	0	1	0	6	2	8
MO15 - Kilkelly	258	684	0	0	0	1,168	764	950	333	558	145	2	0	0	0	3
MO16 - Kiltimagh	848	411	3,193	0	429	6,954	2,223	1,654	2,917	2,436	775	1	14	0	2	17
MO17 - Turlough	622	696	2,008	4,551	7,789	0	822	389	889	844	168	1	7	9	16	0
MO18 - Glenisland	2,908	9,306	9,038	16,261	17,648	11,881	2,790	2,091	1,912	2,646	3,475	20	25	42	40	30
MO19 - Cloondaff	1,524	584	916	660	7,870	2,095	0	1	0	0	0	1	2	1	13	3
MO20 - Glennamong	720	0	4,764	0	1,136	0	0	0	0	0	0	0	10	0	2	0
MO21 - Mulrany	2,435	0	0	6,274	0	0	0	0	0	0	0	0	0	16	0	0
MO22 - Achill	14,997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MO23 - Ballyglass	301	0	0	0	0	5,057	446	576	0	1,397	747	0	0	0	0	11
MO24 - Teevenish	604	273	320	0	317	1,119	0	0	0	0	0	1	1	0	0	2
MO25 - Moorehall	284	1,610	925	1,694	3,885	0	0	0	0	0	0	3	2	3	7	0
MO26 - Claremorris	650	0	0	870	1,574	3,739	0	234	0	0	256	0	0	2	2	5
MO27 - Ballyhaunis	191	0	0	0	2,115	0	921	178	914	0	326	0	0	0	10	0
MO28 - Cloghans	122	0	964	0	978	0	0	0	0	0	0	0	1	0	1	0
MO29 - Tourmakeady	439	14	1,055	635	2,878	1,816	0	0	0	0	0	0	2	1	4	3
MO30 - Claddy	562	561	0	204	0	2,181	0	0	0	0	0	1	0	1	0	3
MO31 - Brackloon	117	0	0	7,913	655	414	0	0	0	0	0	0	0	14	1	0
MO32 - Croagh Patrick	824	0	0	1,597	2,152	0	0	0	0	0	0	0	0	3	4	0
MO33 - Barnaderg	815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MO34 - Doolough	1,208	0	0	0	1,210	0	0	0	0	0	0	0	0	0	2	0
MO35 – Kilmovee	439	2,760	0	2,651	0	1,722	1,277	1,171	1,348	892	146	6	0	6	0	8
SO01 – Benbulben	1,135	10,921	9,814	5,338	11,719	19,377	230	0	411	303	594	25	23	9	20	29
SO02 - Lough Gill	669	12,312	7,788	10,805	1,935	9,753	204	0	19	478	151	26	14	19	3	14

SO03 – Union	1,299	7,587	8,527	13,618	14,482	4,999	1,185	452	174	210	346	15	15	24	41	7
SO04 - Ox Mountain	3,271	43,129	22,404	2,484	6,033	17,310	5	222	963	0	483	94	46	4	17	36
SO05 – Easky	1,054	3,477	5,058	2,423	4,324	2,671	0	0	0	0	0	7	10	5	11	4
SO06 – Moy	3,153	12,501	8,238	10,888	7,633	5,065	435	676	3,180	1,246	0	28	18	24	11	11
SO07 – Tubbercurry	379	1,239	0	1,215	8,721	955	2,011	570	1,015	1,385	1,091	5	0	2	23	3
SO08 – Ballisadare	795	4,598	0	4,065	6,614	0	378	1,364	296	1,408	852	10	0	16	14	0
SO09 – Lavally	472	3,225	1,675	0	11,067	0	788	57	141	568	0	5	3	0	17	0
SO10 – Arigna	2,123	9,287	9,802	13,946	15,983	14,754	1,584	2,345	1,313	2,399	1,098	18	25	31	33	26
SO11 – Drumanone	364	157	1,446	3,166	2,861	0	224	409	583	259	694	1	4	7	4	0
SO12 – Curlews	1,534	8,850	8,468	2,025	9,566	5,178	979	1,314	438	1,508	303	18	20	5	18	6

Appendix VI – Catchments and Sub-Catchments in BAU 1

BAU No.	WFD Catchment No.	WFD Catchment Name	WFD Sub_Catchment No.	WFD Sub_Catchment Name
1	01	Foyle	01_8	Finn[Donegal]_SC_010
1	01	Foyle	01_6	Deele[Donegal]_SC_010
1	01	Foyle	01_7	Finn[Donegal]_SC_040
1	01	Foyle	01_3	Finn[Donegal]_SC_020
1	01	Foyle	01_2	Finn[Donegal]_SC_030
1	01	Foyle	01_5	LeaghanyRiver_SC_010
1	01	Foyle	01_9	JohnstonStream_SC_010
1	01	Foyle	01_4	MourneBeg_SC_020
1	01	Foyle	01_1	MourneBeg_SC_010
1	26A	Upper Shannon	26A_2	Feorish[Ballyfarnon]_SC_010
1	26A	Upper Shannon	26A_3	Shannon[Upper]_SC_020
1	26A	Upper Shannon	26A_4	Arigna[Roscommon]_SC_010
1	26A	Upper Shannon	26A_1	Owengar[Leitrim]_SC_010
1	26B	Upper Shannon	26B_5	Boyle_SC_010
1	26B	Upper Shannon	26B_6	Lung_SC_020
1	26B	Upper Shannon	26B_2	Lung_SC_010
1	26B	Upper Shannon	26B_3	Boyle_SC_020
1	26D	Upper Shannon	26D_9	Suck_SC_010
1	26D	Upper Shannon	26D_8	Suck_SC_020
1	30	Corrib	30_3	Aghinish_SC_010
1	30	Corrib	30_2	Kilmaine_SC_010
1	30	Corrib	30_7	Aille[Mayo]_SC_010
1	30	Corrib	30_9	Robe_SC_010
1	30	Corrib	30_1	Clare[Galway]_SC_020
1	30	Corrib	30_6	Robe_SC_020
1	30	Corrib	30_10	Clare[Galway]_SC_010
1	30	Corrib	30_17	Cong[Canal]_SC_010
1	30	Corrib	30_11	Black[Shrule]_SC_010
1	30	Corrib	30_16	Glensaul_SC_010
1	32	Erriff-Clew Bay	32_9	Bundorragha_SC_010
1	32	Erriff-Clew Bay	32_4	Bellagarvaun_SC_010
1	32	Erriff-Clew Bay	32_5	Newport[Mayo]_SC_010

1	32	Erriff-Clew Bay	32_11	OwenduffBridgeStream_SC_010
1	32	Erriff-Clew Bay	32_2	Owengarve_SC_010
1	32	Erriff-Clew Bay	32_10	Erriff_SC_010
1	32	Erriff-Clew Bay	32_6	CARROWTOOTAGH_SC_010
1	32	Erriff-Clew Bay	32_1	Bunowen[Louisburgh]_SC_010
1	32	Erriff-Clew Bay	32_8	Carrownisky_SC_010
1	32	Erriff-Clew Bay	32_7	Owenwee[Mayo]_SC_010
1	32	Erriff-Clew Bay	32_3	Srahmore_SC_010
1	33	Blacksod-Broadhaven	33_9	Glencullin[NorthMayo]_SC_010
1	33	Blacksod-Broadhaven	33_11	Owenmore[Mayo]_SC_030
1	33	Blacksod-Broadhaven	33_3	Munhin_SC_010
1	33	Blacksod-Broadhaven	33_5	T├┤IN_AN_MH├íSA_SC_010
1	33	Blacksod-Broadhaven	33_7	KEEL_EAST_SC_010
1	33	Blacksod-Broadhaven	33_2	Glencastle_SC_010
1	33	Blacksod-Broadhaven	33_4	Owenmore[Mayo]_SC_020
1	33	Blacksod-Broadhaven	33_10	Belderg_SC_010
1	33	Blacksod-Broadhaven	33_8	Glenamoy_SC_010
1	33	Blacksod-Broadhaven	33_1	Owenmore[Mayo]_SC_010
1	33	Blacksod-Broadhaven	33_6	Owenduff[Blacksod]_SC_010
1	34	Moy & Killala Bay	34_13	Cloonaghmore_SC_010
1	34	Moy & Killala Bay	34_5	Addergoole_SC_010
1	34	Moy & Killala Bay	34_9	Glenree_SC_010
1	34	Moy & Killala Bay	34_14	Deel[Crossmolina]_SC_010
1	34	Moy & Killala Bay	34_20	Castlebar_SC_030
1	34	Moy & Killala Bay	34_21	Castlebar_SC_020
1	34	Moy & Killala Bay	34_1	Moy_SC_040
1	34	Moy & Killala Bay	34_10	Moy_SC_090
1	34	Moy & Killala Bay	34_2	Moy_SC_070
1	34	Moy & Killala Bay	34_3	Moy_SC_060
1	34	Moy & Killala Bay	34_7	Moy_SC_020
1	34	Moy & Killala Bay	34_16	Moy_SC_010
1	34	Moy & Killala Bay	34_17	Moy_SC_050
1	34	Moy & Killala Bay	34_4	Glore[Mayo]_SC_010
1	34	Moy & Killala Bay	34_12	Moy_SC_080
1	34	Moy & Killala Bay	34_18	Moy_SC_030
1	34	Moy & Killala Bay	34_8	Deel[Crossmolina]_SC_020

1	34	Moy & Killala Bay	34_22	Castlebar_SC_010
1	34	Moy & Killala Bay	34_15	Pollagh_SC_010
1	34	Moy & Killala Bay	34_11	Leaffony_SC_010
1	34	Moy & Killala Bay	34_6	Moy_SC_100
1	34	Moy & Killala Bay	34_19	Abbeytown_SC_010
1	35	Sligo Bay	35_2	Owenmore[Sligo]_SC_030
1	35	Sligo Bay	35_1	CARROWGOBBADAGH_SC_010
1	35	Sligo Bay	35_6	Bonet_SC_020
1	35	Sligo Bay	35_8	Bonet_SC_010
1	35	Sligo Bay	35_4	Owenmore[Sligo]_SC_040
1	35	Sligo Bay	35_11	Dunmoran_SC_010
1	35	Sligo Bay	35_3	Grange[Sligo]_SC_010
1	35	Sligo Bay	35_7	Owenmore[Sligo]_SC_010
1	35	Sligo Bay	35_12	Easky_SC_010
1	35	Sligo Bay	35_9	Unshin_SC_010
1	35	Sligo Bay	35_10	Bonet_SC_030
1	35	Sligo Bay	35_13	Drumcliff_SC_010
1	35	Sligo Bay	35_5	Owenmore[Sligo]_SC_020
1	36	Erne	36_27	Erne_SC_050
1	36	Erne	36_20	Drowes_SC_010
1	36	Erne	36_26	TullynasiddaghLoughStream_SC_010
1	36	Erne	36_28	Duff_SC_010
1	36	Erne	36_25	BILLARY_SC_010
1	37	Donegal Bay North	37_4	Glen[Carrick]_SC_010
1	37	Donegal Bay North	37_2	Eske_SC_010
1	37	Donegal Bay North	37_5	Eany[Water]_SC_010
1	37	Donegal Bay North	37_3	Stragar_SC_010
1	37	Donegal Bay North	37_1	Ballintra_SC_010
1	38	Gweebarra-Sheephaven	38_7	Gweedore_SC_010
1	38	Gweebarra-Sheephaven	38_1	AN_C ├ëIDEADH_SC_010
1	38	Gweebarra-Sheephaven	38_6	Tullaghobegly_SC_010
1	38	Gweebarra-Sheephaven	38_5	Lackagh_SC_010
1	38	Gweebarra-Sheephaven	38_3	Burnside_SC_010
1	38	Gweebarra-Sheephaven	38_8	DOIRE_LEAC_CHONAILL_THEAS_SC_010
1	38	Gweebarra-Sheephaven	38_9	Owenea_SC_010
1	38	Gweebarra-Sheephaven	38_4	Owentocker_SC_010

1	38	Gweebarra-Sheephaven	38_2	Gweebarra_SC_010
1	39	Lough Swilly	39_6	Swilly_SC_010
1	39	Lough Swilly	39_1	Crana_SC_010
1	39	Lough Swilly	39_2	Burnfoot_SC_010
1	39	Lough Swilly	39_5	Leannan_SC_020
1	39	Lough Swilly	39_3	CASHELPREAGHAN_SC_010
1	39	Lough Swilly	39_7	Leannan_SC_010
1	39	Lough Swilly	39_4	LeslieHill[Stream]_SC_010
1	40	Donagh-Moville	40_4	Culduff_SC_010
1	40	Donagh-Moville	40_1	Clonmany_SC_010
1	40	Donagh-Moville	40_2	Glennagannon_SC_010
1	40	Donagh-Moville	40_5	Greencastle_SC_010
1	40	Donagh-Moville	40_3	Malin[Stream]_SC_010
1	40	Donagh-Moville	40_6	BogstownRiver_SC_010

Appendix VII – BAU Map