

## LSIP Land Based & Allied Sectors Stage 2

*Creating strategic and targeted training programmes that deliver food security, address biodiversity loss, and tackle climate change, whilst improving lives and livelihoods by facilitating an agile well-informed workforce*

For Cumbria Chamber of Commerce



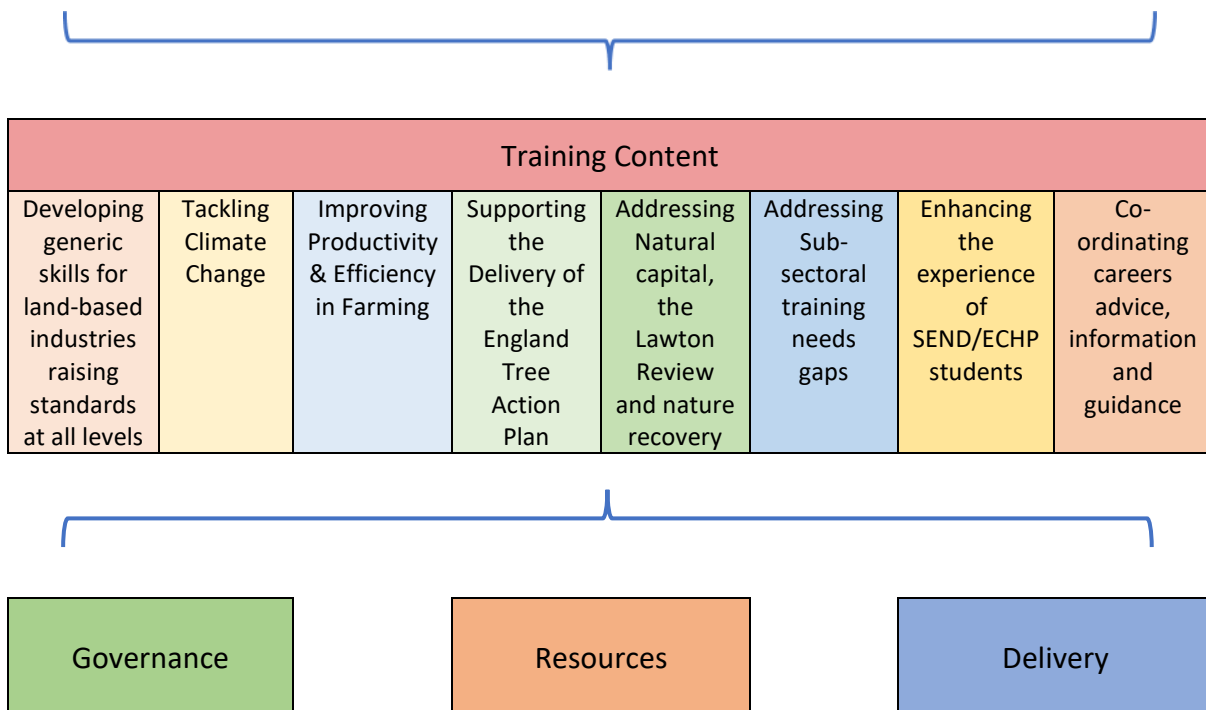
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# EXECUTIVE SUMMARY

## Cumbria Land-based LSIP

*Creating strategic and targeted training programmes that deliver food security, address biodiversity loss, and tackle climate change, whilst improving lives and livelihoods by facilitating an agile well-informed workforce.*



### Context

Land-based & allied sector employment in Cumbria is complex and diverse covering jobs in arboriculture, agriculture, agricultural engineering, conservation, on-farm diversification, forestry, horticulture, related advisory & supply services, small animal care & management, water supply management, equine, heritage land management, outdoor adventure, renewable energies, extractive industries, and sports turf management. At around 10% of the county’s GVA, the land-based & allied sector also underpins the natural capital and interrelated visitor economy. Furthermore, the global challenges of climate change, biodiversity loss and future food security place the land-based industries in a unique position to address these challenges on multiple fronts.

### Aims

In response, current and future Cumbrian land managers require an ever-expanding toolkit of knowledge and skills at technical and professional levels; thus, not only do we need to ensure we

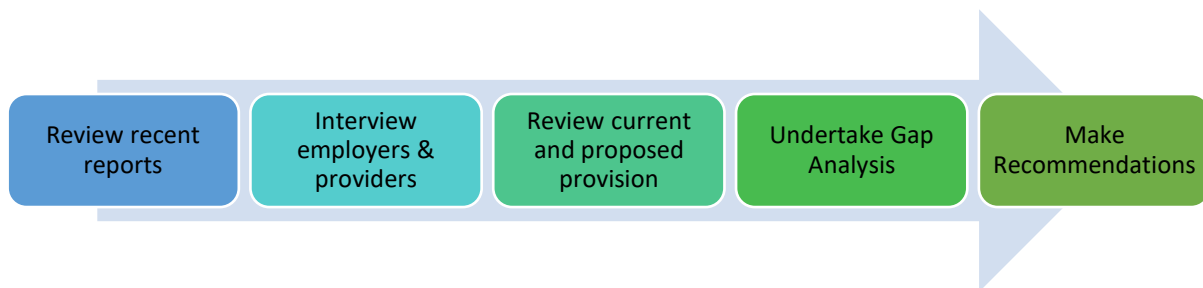
equip new entrants effectively, we also need to *upskill and reskill the current workforce* to respond appropriately. Preparation of the Cumbria Trailblazer report and Cumbria Local Skills Improvement Plan (Cumbria LSIP, 2022) laid substantial groundwork to identify the forthcoming needs of employers in all business sectors. Commissioned by Cumbria Chamber of Commerce, and written by Environmentors Ltd, this ‘*deep dive*’ report (Figure (i)) is designed to:

Address, in more depth and breadth, the specific needs of land-based & allied sector employers and the shape of current provision.

In doing so, we:

Identified the training needs gaps and propose new content to begin to satisfy current and forthcoming training demand.

Figure (i) – Research Process for Land-Based Training Content Deep Dive



### Previous work

Previous work has identified that Cumbrian skills needs reflect national trends. Specifically for Cumbria, there is a lack of strategic overview for land-based skills training and there is a fragmented system of advice, guidance and availability. Little attention has been paid to the allied land-based sector skill needs of horticulture, equine, heritage, agricultural engineering, agricultural supply industries and integrated land management. There is a clear demand for reskill and upskill needs with respect to public goods and nature recovery management, farm skills, business skills, forestry & woodland, and the rural & visitor economy. There are also cross cutting training opportunities that could be shared, for example, how to run a contracting business, management and leadership. There has been a post covid shift in preferred delivery style, with more acceptance for online, but on-farm, face to face, delivery remains the most desirable due to the ‘in practice’ nature of much of the learning.

### Employer needs

Interviews were conducted with 32 employers, providers and enabling organisations (eg careers services) in Cumbria. Employers identified that current and future land-based training **technical content** must include the topics of: mitigating & adapting to climate change, grants and regulation, Use of renewables. **Agriculture** specifically seeks: SMART technologies, nature friendly farming and public goods provision & management. The **Forestry** sector identified: Woodland Carbon Code, Management of ancient and small farm woods, agroforestry, multifunctional nature of forestry beyond timber production and large specialist machinery. The **Conservation** employers recommended landscape scale management, soft skills for employees, the art of partnership working, and nature recovery knowhow (habitats and species). **Horticulture** needs to respond to

climate change along with embracing new production techniques (without peat, under ‘glass’, and using robotics).

A second area of employer needs focused on ensuring **people were ready for direct employment**. Concern was raised regarding too high entry requirements for the new T level, lack of diverse experiences ready for forestry posts, some new employees being too young to hold the required licences and a lack of ‘soft’ interpersonal skills for all land-based sectors. **Professional skills** are needed for all areas of land-based employment covering first line supervision, management and leadership, financial management, project development and project management.

## Current and Future Provision

**Pre-16 is an important stage for the land-based & allied sectors** as it provides young people with the opportunity to learn about the types of careers and careers paths available to them. There are organisation-driven schemes to introduce young people to the role of technology in the dairy sector driven by SRUC from Barony, school schemes run by Westmorland County Agricultural Society and a new countywide initiative, the ‘Cumbria, to increase the value of place and outdoor learning. These are particularly important as knowledge related to these industries currently forms a minor part of the National Curriculum. Whilst in other industries some support is given by **‘cornerstone employers’**, **this opportunity is not available in land-based**, as the industry is dominated by small / microbusiness, and the charity & state sector, with many subsectors and many voices who do not always have the same objectives or messages.

Post 16, land-based and allied sector training provision is complex, not only in terms of availability, but location and provider. For new entrants, a range of L2 and 3 Diploma awards are available, but from different providers and delivery locations inside and around the periphery of the county. Many of these will be replaced by a **single T level** with subject pathways starting September 2023 from a range of providers across Cumbria. The **L2/L3 Apprenticeship offer in county is currently largely limited to agriculture and arboriculture**. A **Level 6 for Professional Forester** programme has commenced at the University this year. There are gaps at Level ‘0’/1 for ECHP/SEND students and at Level 1 for all subsectors, most notably forestry.

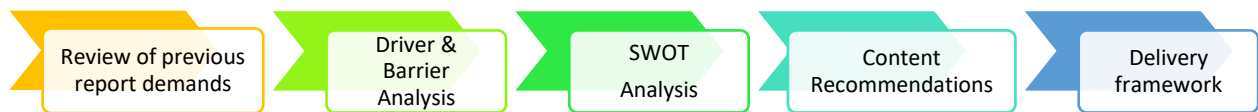
Within and around Cumbria there is a satisfactory range of substantive delivery for traditional higher education land-based programmes and some derivatives. There is scope for more higher-level apprenticeships, as demonstrated by the Level 6 Forestry Professional award at UoC.

With respect to CPD (Continuing Professional Development), these training opportunities are mostly delivered by a combination of sixteen non-college based providers. To meet even one subsector’s need, provision can comprise several independent organisations or training. The corollary is that **Cumbrian CPD provision offer is highly complex** and thus awkward for a potential learner or employment provider to navigate. The focus tends to be on short course provision, which is either accredited or non-accredited. Some short course provision is provided by colleges, but these tend to be related to added value for their substantive programmes. Training courses are of various lengths and levels, and can be credit or non-credit bearing (certificates of attendance). CPD is accredited in many subsectors via ‘chartered’ status (e.g. RICS, ICF, IEMA/IEEM), other subsectors are yet to become chartered (e.g. TIAH, CMA).

## Gap Analysis

Despite the arrival of new provision in September 2023 (forestry at level 3 & 6, early ‘T’ levels) there are still many gaps in training needs (Figure (ii)). **Drivers** affecting those gaps include: climate change, food security, biodiversity loss, changes in Government policy and contemporary societal issues. There are **barriers** to effective delivery which revolve around lack of leadership & co-ordination, limited finance & inappropriate funding models, competition within the land base for resources, land ownership & management control issues, lack of training expertise, loss of county’s land-based college, our geography and inconsistent promotion of what is available.

Figure (ii) – *Critical Gap Analysis: Land Based Sector*



Despite these barriers, a SWOT analysis reveals that **Cumbria has many strengths and opportunities** which we can exploit to greatly improve our training offer for new entrants, upskillers and reskillers. Organisations have made a many laudable efforts to overcome the loss of our land-based college since 2021. Particularly **high-quality assets** include: our landscape and its natural and cultural capital recognised through international and national designations, hill farming and commoning system; our high-quality dairy sector; existing networks of facilitation, discussion groups and partnerships; the country still hosts the National School of Forestry and we have a well-functioning careers service, becoming increasingly integrated.

There is a **clear and apparent gap** in the quality, reliability and standards of climate change advice and training. Much of the activity is being delivered not by colleges, but by voluntary organisations (such as CAFS) or microbusinesses – such as those offering carbon auditing to farms. Currently, there is a lack of formalised training with regards to sustainability which has generated a market for unregulated advice lacking appropriate standards. Cumbria will need to train both its young people in all sectors in climate and environmental compliance and awareness AND train the professionals of the future who will support Cumbria’s drive towards Zero Carbon targets and maximise the effective multipurpose use of land.

## Recommendations

Whilst the main thrust of this report has been to address **content** gaps, the response from many employers and providers, and the expertise of the authors here, is that for the county to provide the right combination of land-based training needs at the most appropriate levels, **governance, resourcing** and **delivery framework** need addressing synchronously.

### Content

To fill the training gaps identified, as priority, we recommend adopting training programmes already developed and accredited elsewhere (e.g. LANTRA Level 5 Leadership & Management, and SRUC’s Peatland Restoration course).

Where there is no current provision, we recommend developing our own bespoke training programmes to cover the following areas:

### Filling the content gaps in provision

<b>C1</b>	Developing generic skills for land-based industries raising standards at all levels
<b>C2</b>	Tackling climate change, including brand new delivery across all levels
<b>C3</b>	Improving productivity & efficiency in Farming
<b>C4</b>	Supporting the delivery of the England Tree Action Plan
<b>C5</b>	Addressing Natural Capital & the Lawton Review & nature recovery
<b>C6</b>	Addressing sub-sector training needs gaps
<b>C7</b>	Enhancing the experience of SEND/ECHP students
<b>C8</b>	Co-ordinating careers advice, information and guidance

To support these specific actions, it is also recommend addressing the following:

### Governance

#### *How the delivery is organised*

<b>G1</b>	Co-ordinate land-based provision in Cumbria under one body / banner
<b>G2</b>	Implement a 'one stop shop' of land-based skills training and career advice
<b>G3</b>	Increase the recognition of the importance of land-based training in Cumbria to students of all ages
<b>G4</b>	Explicitly link land-based training skills programme to county agendas, policies and action plans

### Resources

#### *Who does what, where and how is it paid for*

<b>R1</b>	Improve access to land-based training skills for all
<b>R2</b>	Increase funding for land-based training to accredited and non-accredited providers
<b>R3</b>	Attract and recruit appropriate staff and more deliverers to service provision needs

### Delivery

#### *How are the needs of the learner matched to the providers*

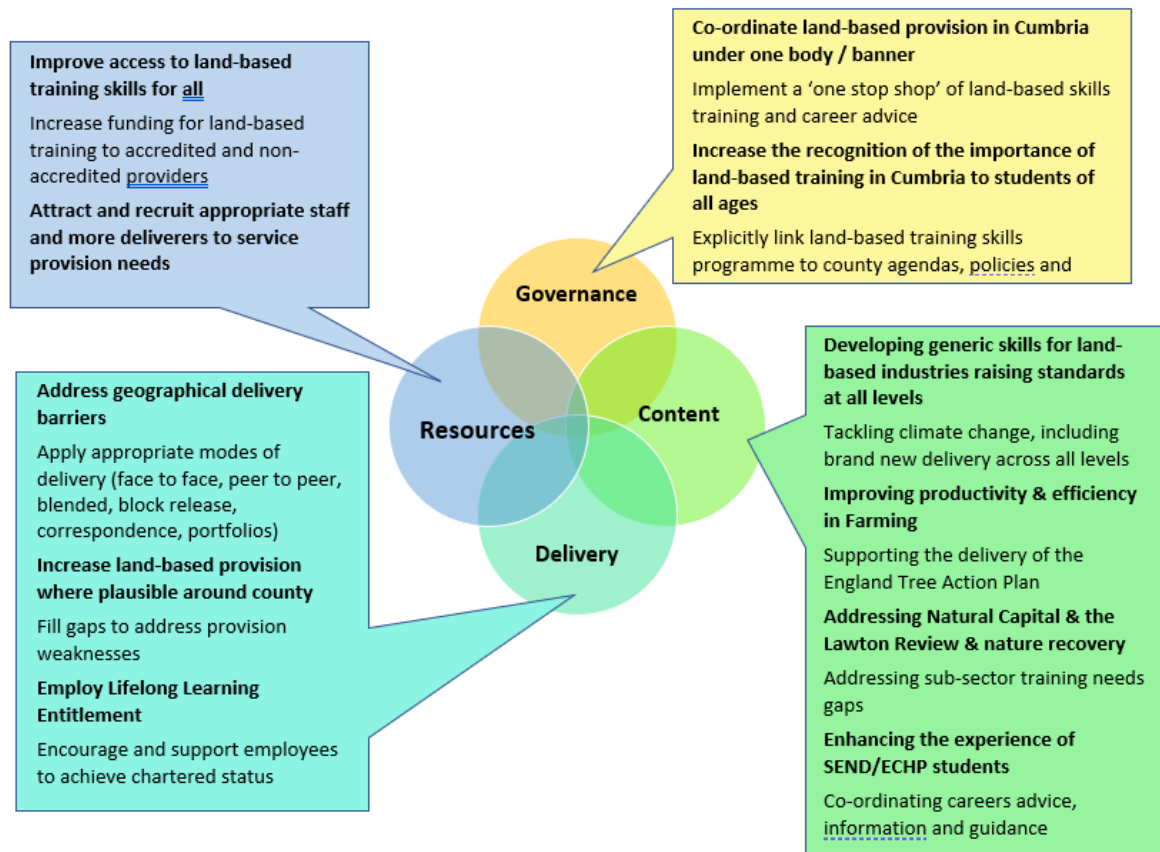
<b>D1</b>	Address geographical delivery barriers
<b>D2</b>	Apply appropriate modes of delivery (face to face, peer to peer, blended, block release, correspondence, portfolios)
<b>D3</b>	Increase land-based provision where plausible around county
<b>D4</b>	Fill gaps to address provision weaknesses
<b>D5</b>	Employ Lifelong Learning Entitlement
<b>D6</b>	Encourage and support employees to achieve chartered status

Addressing food security, protecting and enhancing nature, and tackling climate change are the three main overriding challenges for the land-based sector. We must ensure the learning being provided at school, in college and as part of continuing professional development is of the necessary standards, relevance and quality for that future. **The most transformational single action** is likely to be in terms of governance; **to establish an independent consortia-style group with a respected head who can lead impartially, give vision and clear strategy to various stakeholders.** To support

this a series of incremental solutions will need developing, in order that we prepare our current and future land managers for the challenges ahead.

We recognise that this analysis has generated substantial work to be done to move Cumbrian land-based & allied sectors onto the front foot, working together. We would, therefore, welcome further dialogue with the Designated Employer Representative Body and the Chamber of Commerce to enable prioritisation of the 19 recommendations (Figure (iii)).

*Figure (iii) – Recommended Structure of Land-Based Skills Provision for Cumbria*



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# 1 Introduction

Land-based & allied sector employment in Cumbria is complex and diverse (see Terms of Reference, Box 1). Banford (2020)<sup>1</sup> describes how this sector provides 10% of the county's GVA and underpins the natural capital and interrelated visitor economy of the county. Roughly 8 to 10 thousand people are employed in agriculture, with the next biggest sub sector being conservation at 2 to 300. Furthermore, the global challenges of climate change, biodiversity loss and future food security place the land-based industries in a unique position to address these challenges on multiple fronts. Consequently, our Cumbrian land-based sector provides multiple avenues to address the UK Government's [Ten Point Plan for a Green Industrial Revolution](#), notably points 2, 4, 8, 9 and 10 (HM, 2020).

In response, current and future Cumbrian land managers require an ever-expanding toolkit of knowledge and skills; thus, not only do we need to ensure we *equip new entrants* effectively, we also need to *upskill and reskill the current workforce* to respond appropriately. Cumbria is not unique in relation to this task, our sister LSIP in Sussex (Davies, in prep.) recent England-wide work for The Institute Agricultural & Horticulture (TIAH) acknowledged similar oncoming skills demands for the land-based sector (Nye *et al.*, 2022)<sup>2</sup>, and the Institute of Chartered Foresters (ICF, 2021) for the UK forestry sector.

## Box 1 - Terms of Reference

**Land-based includes:** arboriculture, agriculture, agricultural engineering, conservation, on-farm diversification, forestry, horticulture.

**Allied sector includes:** advisory services to the above, supply services to the above, small animal care & management, water supply management, equine, heritage land management, outdoor adventure, renewable energies, extractive industries, sports turf management.

## 1.1 Report Structure

Preparation of the Cumbria Trailblazer report and Cumbria Local Skills Improvement Plan (Cumbria LSIP, 2022) laid substantial groundwork to identify the forthcoming needs of employers in all business sectors. Commissioned by Cumbria Chamber of Commerce, and written by Environmentors Ltd, this 'deep dive' report (Figure 1) is designed to:

Address, in more depth and breadth, the specific needs of land-based & allied sector employers and the shape of current provision.

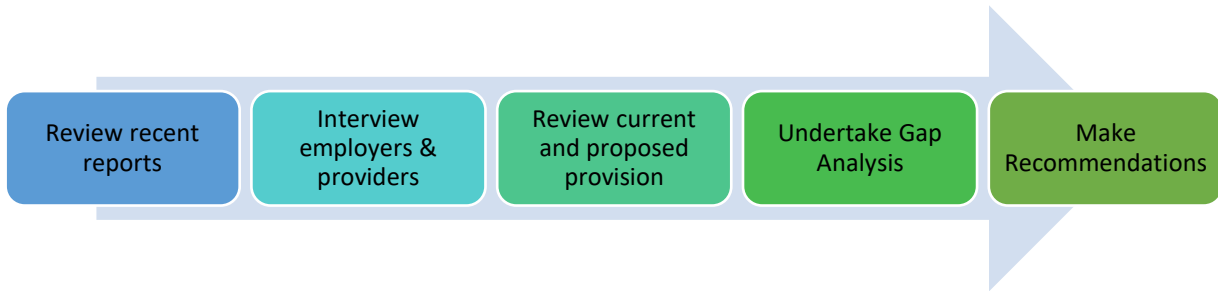
In doing so, we will:

Identify the training needs gaps and propose new content to begin to satisfy current and forthcoming training demand.

<sup>1</sup> Banford (2020) *Cumbria Strategy for Post 16 Land Based Education, Skills & Knowledge Transfer*. 2020. University of Cumbria & Eden District Council

<sup>2</sup> Nye C., Wilkinson T & Lobley M (2022) 'Labour and skills in the horticulture and agriculture sectors in England 2022: Summary report' A report for The Institute of Agriculture and Horticulture.

Figure 1 - Research Process for Land-Based Training Content Deep Dive

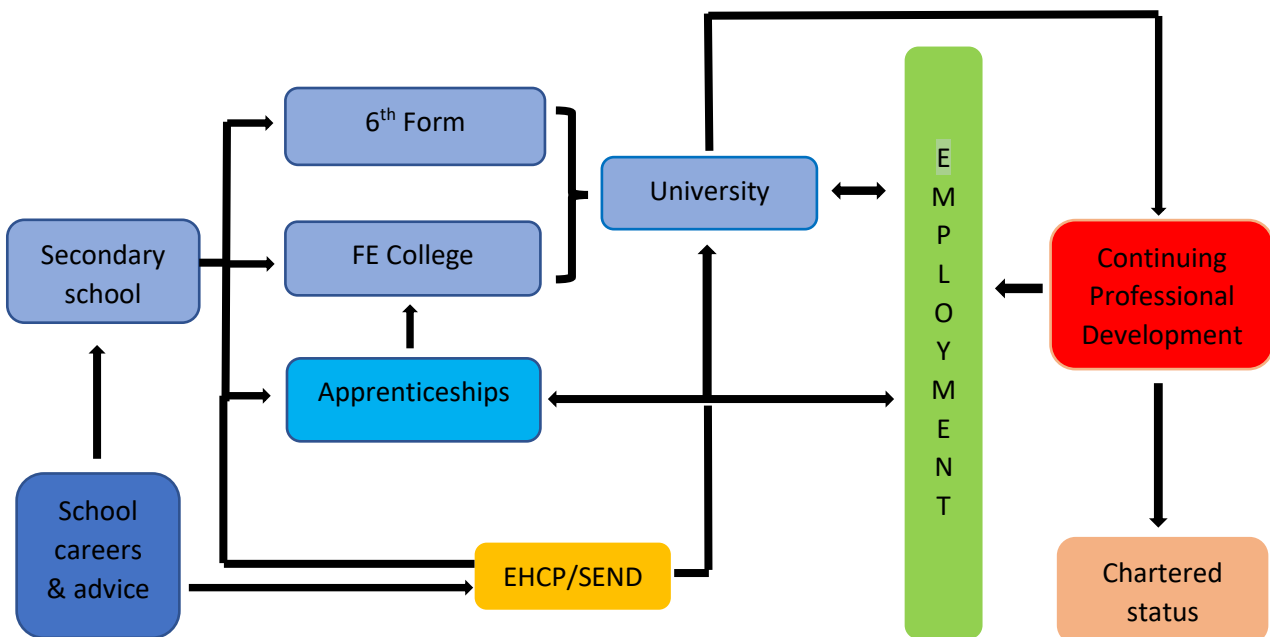


### 1.2 Report Scope

This report covers employer-led needs and training provision (Figure 2) accessible to the people of Cumbria, (including beyond the county boundary) with respect to land-based and allied sectors (as identified in Box 1) in relation to:

- Horizon scanning employer-needs by interviewing employers and employer representative organisations (inc at national level)
- Needs of new entrants, and those in need of upskill or reskill
- Current and in development provision in relation to:
  - Pre- 16,
  - 16 to 19 (School and Further Education),
  - Higher Education
  - SEND (Special Educational Needs & Disability),
  - CPD (Continuing Professional Development).
- Gap analysis between needs and provision
- Recommendations for lacking content
- Recommendations to assist and facilitate development and delivery of programmes

Figure 2 – The Relationship between Training Provision and Employment



## 2 OVERVIEW OF PRIOR WORK FOCUSING ON SKILLS NEEDS IN THE LAND-BASED SECTOR

For the Cumbrian land-based sector, there are now several skills-based reports which provide baseline details for future training needs. Along with the Cumbria Trailblazer which provides the basis for Cumbria's LSIP (Local Skills Improvement Plan, 2022), other needs analysis can be derived from the LANS (Land and Nature Skills Service) project delivered by the Food, Farming and Countryside Commission (FFCC, 2022), the training needs work developed by Cumbria Local Nature Partnership (Evans, 2022)<sup>3</sup>, the University of Cumbria and Eden District Council report on *Further and Higher Education in the land-based sector* (Banford, 2020<sup>4</sup>) and latest Local Skills report from Cumbria LEP (Cumbria LEP, 2022). Finally, two national reports by The Institute of Agriculture and Horticulture (TIAH) (Nye *et al.*; 2022) and Charter Institute of Forestry (2021) regarding agricultural and horticulture employment and forestry respectively.

We do not intend to repeat in detail the findings of these documents and there is overview in Annexes A to D of this report. The main points of interest here in relation to land-based and allied sector training were:

- Skills needs trends in Cumbria reflect national trends
- There is a lack of strategic overview for land-based skills training in Cumbria
- There is a clear demand for reskill and upskill needs with respect to public goods and nature recovery management, farm skills, business skills, forestry & woodland, and the rural & visitor economy (Table 1).
- The availability of where and what land-based training is available is fragmented
- There is an emphasis in these reports on the need for upskill and reskill, *not new entrants*, very few surveyed were under 30.
- The forestry sector will need substantially more and better qualified employees.
- Little attention has been paid to the allied land-based sector skill needs of horticulture, equine, heritage, agricultural engineering, agricultural supply industries and integrated land management (see Table 1).
- There are cross cutting training opportunities that could be shared eg how to run a contracting business, management and leadership
- The traditional style of delivery has changed since 2019 with more acceptance of online and blended learning, but on-site delivery remains the most desirable.

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<sup>3</sup> Evans P (2022) *'Cumbria Local Nature Partnership: Nature Recovery Skills Needs Assessment.'* Supported by Natural England the NFU

<sup>4</sup> Banford (2020) *Cumbria Strategy for Post 16 Land Based Education, Skills & Knowledge Transfer. 2020.* University of Cumbria & Eden District Council

Table 1 - Summary of Land-Based Skills Needs identified in Previous Cumbrian Reports

	LSIP trailblazer	LANSS	Banford, 2020	CLNP report
<b>Public goods &amp; Nature recovery</b>				
Mapping	✓	✓	✓	✓
Ecological surveying	✓	✓	✓	✓
Soil Survey	✓	✓	✓	✓
Natural flood management	✓	✓	✓	✓
Habitat and species ID		✓	✓	✓
Habitat restoration	✓	✓	✓	✓
Peatland restoration	✓	✓		✓
Machinery tickets	✓	✓	✓	
Practical skills	✓		✓	
Carbon & Net zero		✓	✓	✓
Biodiversity net gain		✓		
Archaeology		✓		
Geology		✓		
ELMS			✓	✓
Climate change on farming			✓	
Water management		✓		✓
Sustainable soil management				✓
<b>Farm Skills</b>				
Animal Health & welfare	✓	✓	✓	
Livestock husbandry	✓		✓	
Tickets for machinery	✓	✓	✓	
Grazing regimes	✓	✓	✓	✓
Regenerative & Nature friendly farming	✓	✓	✓	✓
Precision/ SMART farming	✓		✓	
Sheep dog training		✓		
Hill farming		✓		
Field boundaries		✓	✓	✓
Tree surgery		✓	✓	
Gamekeeping & shooting		✓		
Compliance requirements			✓	
Technological advances			✓	
<b>Business skills</b>				
Farm business planning	✓	✓	✓	✓
Marketing and customer services	✓	✓	✓	
Whole farm planning		✓		
Grant applications		✓		✓
Digital skills		✓	✓	
Communications		✓		
People management			✓	
Data collection and analysis			✓	
<b>Issues of retention &amp; recruitment</b>				
Trained operatives moving on	✓			
Lack of people to fill management roles	✓			
<b>Forestry &amp; Woodlands</b>				
Trees and scrub		✓		✓
Woodland advice		✓		✓
Design planning		✓		✓
Woodland creation		✓		✓
Coppicing		✓		✓

Agroforestry				✓
Wood pasture				✓
<b>Rural &amp; Visitor Economy</b>				
Farm & wildlife tourism				
Guiding				
Farm diversification			✓	
Public engagement		✓		
Environmental education		✓		
Outdoor education		✓		
Traditional crafts		✓		
Greenwood working		✓		
Wool		✓		

### 3 - REVIEW OF EMPLOYER NEEDS

This part of the report explores the collective responses of 32 employers, employer representative organisations, careers advisers, other enabling organisations and providers with respect to their thoughts on training needs for the land based & allied sectors. Sub-sector views on current provision are considered first and then a summary of additional training needs required from now on.

#### 3.1 Views on current provision

##### Agriculture

The overriding view of all interviewees is the need to **ensure that current provision is constantly updated** to reflect new innovations, trends, and industry developments. Two areas were specifically identified:

- ‘smart’ farming technologies need addressing. This has been tackled in different ways, by different providers; for example, Kendal College have a comprehensive network of friendly farms, in contrast, Myerscough College in Lancashire invest in their farm on site.
- Ensure **how farming benefits nature** is included along with a continued emphasis on updating grant scheme knowledge (content, application and delivery), as well as other similar **current regulatory requirements** and funding, as and when they are announced.

The farming sector, in general tends, to perceive that **students with a previous background in farming are far more employable** at the end of a programme than new entrants from a non-farming background. Therefore, the industry considers the current programmes too short for a novice student to become employable. This is also recognised at national level (Nye *et al.*, 2022).

However, the apprentice approach where a candidate spends time at one or a cluster of farms is perceived slightly more favourably.

Agricultural Engineering can be studied as an apprenticeship with taught programmes at Myerscough. Most agricultural apprenticeships however are with agricultural machinery equipment suppliers and the taught sessions session are by block release at the relevant manufacturing supplier (eg Klass, John Deere, Massey Ferguson, JCB etc....) elsewhere in the UK.

No delivery of programmes are aimed a diversified farm enterprise, contracting or controlled environment farming.

## Forestry

Employers identified that some newly qualified L5 (and below) students may have the knowledge and relevant certification, but they frequently **do not have sufficient range of work experiences** to be readily employable.

A secondary challenge can be that these students are, as yet, **too young to hold a full driving licence** to be able to access work sites and operate certain self-powered machinery. Interest from community groups and providers of SEND placements have suggested a 'Level 0 or 1' programme is needed. That need is also confirmed by a general lack of skill planting and tree establishment teams.

With respect to graduates, the main challenge is lack of '**soft**' **interpersonal skills** such as negotiation, conflict management and team leadership. Furthermore, some graduates do not have a complete understanding of modern **multifunctional forestry** (ie its not just about planting, harvesting and production, but about nature, carbon, landscape, leisure, recreation health and wellbeing).

Most continuous professional development is satisfactorily organised under the auspices of the ICF (Institute of Chartered Foresters) and is linked to a wide range of training from the likes of the Small Woods Association, Bill Hoggarths Memorial Coppice Trust and Cumbria Woodlands 'Canopy' programme.

## Conservation

There is no current provision below L6 in the county, but it is available at Craven College in Skipton, North Yorkshire and Myerscough College in Lancashire. Local & national government agencies and charities are the major employers in this area and broadly employ new entrants at level 6 and above. The sector is partially supported by allied chartered institutes (IEMA/IEEM), the main body, the CMA (Countryside Management Association) has recently introduced an accreditation system, but as yet, this has not achieved chartered status.

## Horticulture

Most of the employment in horticulture is by large groundwork companies, including just out of county 'Ashlea Landscaping', who provide their own in-house programmes and consider this provision satisfactory.

The remaining garden design, garden services and nursery provision are reportedly content with new entrants, the few production horticulturalists have not reported any issues.

## Allied Sectors

Employers across the allied sectors would **prefer local training provision**, but where there is none, they have to go out of county (see Part 4). As a result, this adds a layer of complexity to their procurement.

The outdoor industry is more than adequately covered by provision in and out of county. Some issues have been expressed about progression for Kendal to UoC and in CPD provision support, though many providers do this inhouse.

Kendal College report that their placement providers have requested that they deliver at a higher level, to supply a demand for veterinary nurses, but are currently unable to do so. There are no

reports of issues with animal care as delivered in county by Kendal College, it is also delivered at Furness College in collaboration with Myerscough.

The equine industry has found that training of existing staff takes place best within the riding school context. However, there remained the potential for NRLtd to re-introduce their planned programmes at Newton Rigg based around their expanding event programme. The hope is that there will be some provision at Levels 2 and 3 and continued support apprenticeships at those levels too, eventually in the long term to consider if there is a market at Levels 4/5.

Game provision, a previous USP for Newton Rigg has gone and there remain a few placements whose training is delivered out of county. Loss of this provision is disappointing.

Historic England and the National Trust run their training nationally and in house. Since Kendal College no longer support a museums course, there is no other provision of substantive heritage skill programmes. Small local groups such as Eden Heritage provide short courses funded by the Lottery.

No specific water industry certified training is available. United Utilities conduct in-house training, as do the Environment Agency. The FBA and the Rivers Trusts provide to training to others as well as in-house.

The extractive industries do no certified training in Cumbria.

The agricultural supply sector indicated skills in the retail sector as core, yet knowledge and awareness of customer business is desirable, so will often employ people with a farm family background.

The Land agency / advisory sector, note that their primary method of learning is at colleges outside the county and professional continuous development is through the Chartered accreditation process of RICS (Royal Institute of Chartered Surveyors).

### 3.2 Views about imminent new provision

#### Agriculture

The character and content of T levels were raised by many. There were three main points raised:

- The need to continually incorporate 'smart' farming technology content as it evolves.
- Entry requirements and content for T levels as an equivalent to 3 A levels is raising concern that the award is **too academic with not enough vocational content** to produce immediately employable candidates. It is more likely students who complete a T level will use it to go onto vocational degrees such as Agronomy or Land Economy etc.
- As a result of point 2, providers and employers are both **advocating the retention L3 Extended Diploma**.

#### Forestry

**Level 3 Apprenticeship** has been rewritten this year and thus there is now a hiatus in provision.

The **Level 6 apprenticeship in Professional Forestry** is reported to be recruiting 40 places this coming year, from an entry pool of 800 applicants.

There is an imminent need for the whole industry to **understand the woodland carbon code**, but there is a lack of provision regarding this.



## Conservation

Currently there exist Apprenticeships at L2 and L4, however there is an increasing feeling that these should be upgrade much as forestry has to be awarded (and financed) at **L3 and 5 instead** to reflect the types of jobs available in the sector. In order to allow this change there needs to be commensurate financial support in line with other land-based sectors.

The [Countryside Managers Association](#) has developed a set of four levels of an accredited standard for the industry, however, as yet no provider exists for Cumbria. They recognise equivalency with the Apprenticeship standards.

## Horticulture

The horticultural sector recognises that it requires training which includes climate change mitigation and amelioration in its awards. TIAH (The Institute for Agriculture & Horticulture) are promoting their 'chartered' accreditation programme (validating learning into awards) with the purpose of professionalising the industry further.

## Allied Sectors

The Allied sectors have highlighted that they struggle to demonstrate sufficient need for there to be an opportunity for a provider to invest within the county in the necessary resources to deliver substantive programmes in these areas.

Small animal care/management is well catered for in the county apart from Veterinary Nursing, the delivery of which is restricted to certain qualifying colleges in the country.

Some mention from industry support organisations has been made of the need of new entrants to need development in the 'soft skills' as much as technical or professional competence.

### **3.3 Future needs (medium and long term)**

#### Agriculture

The following areas were identified for future needs:

- **Smart farming** (use of technology and data and improving farm productivity and efficiency). The areas raised specifically by respondents included working with data (for agronomists or breeding), GIS, real time application for input data and yield mapping.
- **Controlled Environment farming:** using technology to provide protection from the outdoor elements and maintain optimal growing conditions for stock or crops. The rearing of chicken and egg production are early examples of this in Cumbria.
- **Diversification** into on-farm non-farm enterprise

A second priority is in relation to nature-friendly farming to address the following skills needs:

- **ELMS and related government schemes** knowledge
- people's **new responsibilities under the new Environment Act**
- **Extensification of systems** that includes introduction, re-introduction and enhance of habitat and species (incl. nature friendly farming, regenerative farming, rewilding, pasture-led, rotational grazing, outdoor reared, organic, biodynamics);
- **Re-treeing the landscape** (individual, clumps, small woods, agroforestry, wood pasture).

- **Delivery other public goods** – flooding alleviation, diffuse pollution eg Petteril valley, slowing the flow, peat restoration (lowland and upland)

Other areas mentioned included the utilisation of land at a farm scale for **renewable energy production** (such as solar farms, micro-anaerobic digestion, HEP, wind). Consequently, more technicians will inevitably need training to install and maintain such installations.

Finally, specifically targeted by The Institute for Agriculture and Horticulture, there needs to be a concerted effort to upskill or reskill people in relation to:

- **management and leadership**
- **financial management**
- **project management**

### Forestry

With the introduction of the **England Trees Action Plan** and the **Environment Act 2021**, there is a commitment for increased woodland cover in the UK. This can be achieved by planting more trees or better managing extant wooded areas which currently exist. **Insufficient trained labour force** to address this requirement means there needs to be an accelerated programme of training.

Additional knowledge and skills needed in the following areas:

- **‘Right tree in the right place’** linked opportunity mapping (eg floods and carbon)
- Understanding the **Woodland Carbon Code**
- **Agroforestry** – all aspects
- **Management of ancient woodland**
- **Management of small farm woodlands**
- **Multiple use of forests and woodlands** (ie leisure, wellbeing, tourism and nature conservation)
- **Large specialist machinery** is increasingly in use and needs operatives.

There is a need to **deliver a L1 programme** which does not involve machinery suitable for people at 16 and for community groups.

### Conservation

With respect to the conservation sectors, employers focused their needs into three main areas:

- **Soft skills** such as interpersonal relations, conflict management and team leadership are needed. This will help support the needs of multifunctional land management and the **better partnership working** between land managers, land managers and agencies; and second, between land managers and other commercial interests through **biodiversity net gain and carbon offsetting/trading**. ie developing bonding, bridging and linking social capital.
- **Nature recovery** – in line with the Lawton Review (2010) of bigger, better and more joined up to create landscape scale systems supported through effective ELM schemes. As a consequence, people will need **equipping with the knowledge and skills to design, manage and operate landscape scale conservation projects**. To **enable species recovery and re-introductions** such as beavers and white-tailed eagles.
- **Climate change** skills are needed so that land managers will be able to **manage habitats and species** in the context of a changing climate (warmer & wetter plus movement of seasons),

can **react to changes in climate** and our decision making through **peat, soils, permanent pasture, and tree cover** crossing over into **flood management**. There will also need to be training in climate-induced **pest & disease management** (also caused by globalisation).

### Horticulture

With respect to landscape horticulture, the increased need to ensure **climate change mitigation and amelioration** continues to be built into future training (eg less peat, changes in growing seasons, alterations in temperature regimes, drier and wetter periods).

For production horticulture developing opportunities in **protected environment production, aquaponics, hydroponics, farming under glass, and vertical farming** in terms of growing & harvesting, as well as **technician skills to maintain and repair equipment & machinery**. To consider the production of **meat synthetics** (due to increase in veganism awareness) and to explore the **use of renewables**.

### Allied Industries

- Equine ownership and attendance at events have increased and horse ownership remains popular.
- Game continues to employ a small number of staff on a consistent churn, the employment change due to stopping burning is imperceptible. No significant needs reported
- Visitor & rural economy exploits a certain amount of Cumbrian land whether it is activity based farm diversification or the works (and training) that goes into the 'fix the fells' project. No significant needs reported
- Sports turf & golf, synthetic surfaces have a consistent churn of staff, Cumbria has a leading sports turf supplier No significant needs reported
- Extractive industry there remains demand for slate and dimension stone and some aggregate, gypsum remains dominant, but lime is making a small comeback and there is the prospect of a new deep coal pit mine No significant needs reported
- Heritage land management is a tiny sector, but the National Trust, smaller charities and 2 world heritage sites mean activity is constant. Heritage building skills and other heritage crafts still need more exponents No significant needs reported
- There is increasing need for farmers and land managers to access professional advice to cope with compliance, diversification, government schemes, carbon offsetting and issues such as succession No significant needs reported

### **3.4 Barriers to training recognised by employers**

Employers and their representatives, enabling organisations and providers recognised that there are also a range of barriers operating in terms of the county's ability to deliver training.

The most pressing challenge related to the **geographical dispersion** of students, employers and providers. Often supply and demand were mismatched. Inevitably, the extended distances between all combinations of the three creates **additional costs**.

Second, **lack of appropriate transport** in terms of route availability, quantity, length of travel time and time of day are compounded by our geography and the locations of students, employers and providers.

Third, there are **increasingly fewer available employees sufficiently skilled** to fulfil the needs of the various subsectors. Furthermore, employers **struggle to retain staff** they already have due to increased job choice in the general workforce at commensurate levels of pay, sometimes with improved working conditions. This has also reported nationally (Nye *et al.*, 2022). Upskilling can paradoxically exacerbate this issue. However, there were no reports of frustration due to lack of skilled European workforce.

**Affordability of housing** due to low salaries and unaffordable housing stock, compounded travel distances as above make it difficult to encourage a home-grown workforce to remain or make it difficult to attract those from out of county.

Current employees in several subsectors of the land based & allied industries **do not see training as a career enhancing opportunity**.

Many interviewees identified that the **lack of central co-ordinated land-based college** creates no single voice as a driver to set vision, develop strategic direction, offer leadership or advocate change.

Additionally, it has been commented that the **development of the two new unitary authorities** has already created some about in a lack of clarity in the future.

Interviewees raised that there is a perception that the **value and potential of the land-based sector is not fully understood**, nor recognised by some of those agencies charged to promote it.

There is **lack of acceptance amongst land-based employers** that various policy changes require a more flexible approach to business development and indeed those changes need to be relatively rapid.

Finally, there are **additional specific issues** related to providing for students with SEND and ECHPs regarding options, locations and transport.

### 3.5 Employer Needs Summary

Employers identified that current and future land-based training content must include the topics of:

General (all sub sectors)

- mitigating & adapting to climate change
- Grants and Regulation
- Use of renewables

Agriculture

- ‘Smart’ technologies & controlled environment farming
- ‘Nature friendly’ farming
- Public goods provision and management

Forestry

- Woodland Carbon Code
- Management of ancient and small farm woods
- Agroforestry
- Multifunctional nature of forestry beyond timber production

- Large specialist machinery

#### Conservation

- Landscape scale management
- Soft skills and Partnership working
- Nature recovery – habitats and species
- Lawton principles of bigger, better and more joined up habitat

#### Horticulture

- New production techniques using system integration (glass, robotics, water conservation, renewables, and microenergy renewable generation).

#### With respect to people being ready for direct employment there is concern about:

- the preparation supplied by the new T level for employment
- students with a previous background in farming fare better than those without
- there can be a lack of diverse experiences ready for forestry jobs
- some new employees can be too young to hold the required licences
- lack of 'soft' interpersonal skills for all land-based sectors

#### Other skill sets needed across many land-based sub sectors include:

- management and leadership
- financial management
- project management

#### Barriers to effective training provision and employment include:

- Geographical dispersion between employers, students and providers
- Travel in terms of cost, availability, routes, schedules
- Lack of appropriately skilled and the ability to retain them
- Lack of Affordable housing
- Training not perceived as career enhancing
- Lack of a centralised land-based college to lead on strategy
- Development of the two unitary authorities creates additional complexity
- Value and potential of land-based sector is misunderstood
- Lack of understanding by land based employers that there needs to be change in their business models to accommodate the new directions.

## 4 - REVIEW LAND-BASED & ALLIED SECTORS TRAINING PROVISION

Currently training in Cumbria and for Cumbrians is provided by several providers at a range of levels, both in county and nearby in person and wider afield, through a variety of alternative delivery methods.

### **Box 2 – Terms of Reference: trainee types**

**New entrant** – generally a young person (from 16) entering the industry for the first time needing initial training. This could include those from outside the sector seeking specific knowledge and skills for their own employment or domestic setting.

**Upskiller** – someone already working in the land-based and allied sector who wants or needs new knowledge and skills

**Reskiller** – a person from another profession or employment sector wishing to join the sector.

### 4.1 State supported system

The training cycle begins at school and is within the National Curriculum and in careers advice and guidance (Annex F). Students at 16 remain at school (where few get the chance to study land-based skills) or go to a college locally or that supplies the type of specialist vocational training they seek.

**CASE STUDY** – [SMARTStems Dairy](#) is funded through the Digital Dairy Chain.

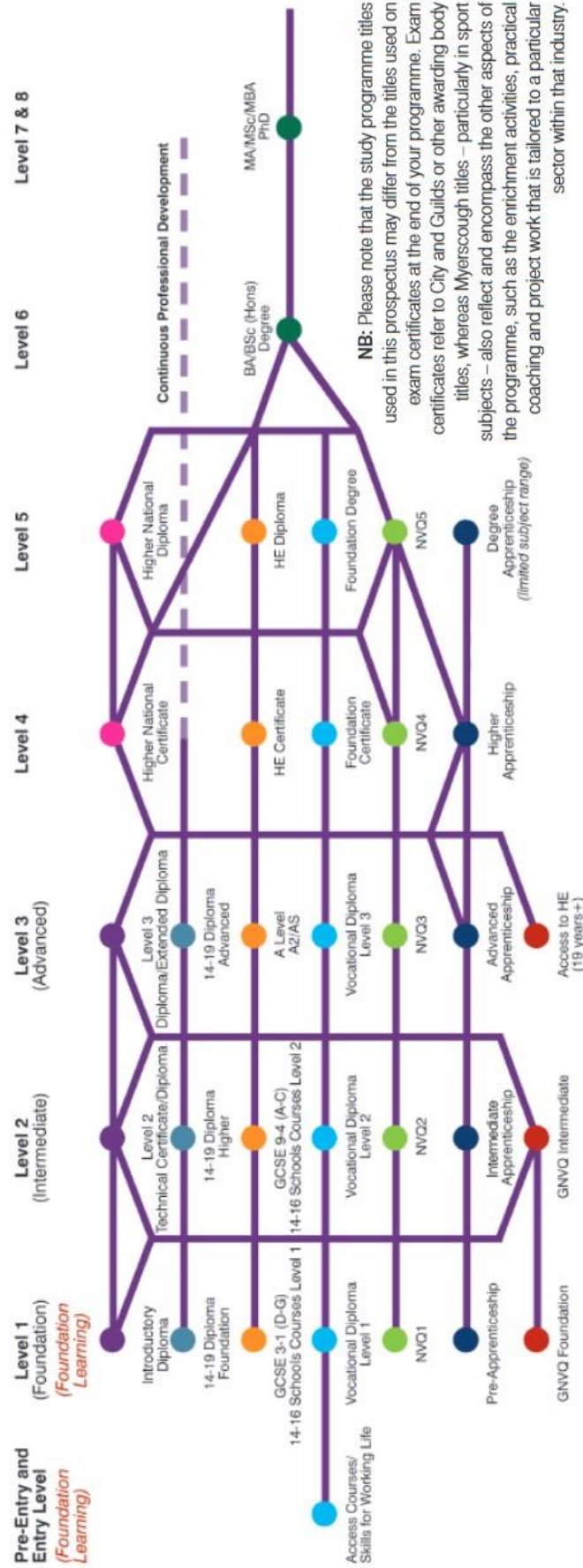


Resources are provided by IT entrepreneur funds for STEM career support and advice targeted at years 9 & 11, when pupils are making option choices. The dairy project in Cumbria is led by Donna Walton and visits schools, sets up events for various school groups to visit, and engages with businesses to host visiting groups. The **dairy at Torpenhow** is a prominent proponent of integrated high-tech production and processing and is a leading example of the STEM dairy approach and smart farming.

At college, options for land-based students can become complex (Figure 3). Students may study at Levels 2 or 3 (National Diploma, Extended National Diploma) and either progress through levels to university (Levels 6 to 8) or move into the job market (Annex F). With the loss of Newton Rigg other providers have stepped in to ensure continuity in innovative ways.

**Figure 3 - Mapping of Training Provision Routes**

(Source: with kind permission of Myerscough College (Prospectus, 2023))



### CASE STUDY – Ullswater Community College & Myerscough

Ullswater have developed this provision by working with Myerscough College, the latter of which utilises the site and its facilities and adjacent farmland to deliver programmes for 16-19 year students. Students can work their way towards a Level 2 qualification in agriculture, depending on their capability, including working at other venues and even Myerscough itself. Many have EHCPs and follow foundation level (Level 0) and Level 1 programmes. It is plausible for a student in this group to stay at school until 19 (3 years). All these pupils attend the school provision in Maths and English.



The school’s geographical catchment is the largest in England at 600 square miles and is served by their own managed integrated transport system. It includes Alston, upper Eden, Shap, the eastern Lakes and outskirts of Carlisle.

The school is seeking to further partner with Myerscough through a whole school site programme of development; rejuvenating and reorganising the site to deliver additional provision. This is intended to include a specific block for FE provision that could also provide a **multi-user adult learning space** along with conferencing facilities, in line with DFE guidelines for site safety, protection and segregation.

An alternative route is the apprenticeship model (Levels 2 to 6), where learning is provided in colleges and work experience is provided and paid for by employers (Annex G).

A limited number of subjects are available in county at ND level; agriculture, small animal care and outdoor recreation. A wider range (agriculture, horticulture, conservation, engineering, game, equine, sports turf, forestry, arboriculture) is provided in neighbouring counties. These subjects can be pursued as apprenticeships with the college taught element out of county, but availability for the various levels is different for each specialism (Annex G) with little at Level 1, or at Level 4 or above.

An exception is those students with special educational needs and disabilities, who have access to a range of specialist provision up to the age of 24 (Annex F). These students can be supported by state education through specific programmes, and assistance with maths and English as work and education provided by a range of mostly charitable institutions from the non-state supported sector (primarily charities).



### CASE STUDY – Ernest Cook Trust

The Ernest Cook Trust’s purpose is to nurture lifelong journey of learning, appreciation and respect for the countryside through a range of outdoor learning experiences. The ECT acquired Low Becks Farm in Mungrisedale in 2021, to build a demonstration facility, to become a learning hub and a community resource.



Working with Lowther Estate, Kendal College for Level 2 and 3 City & Guilds students. They specifically like to provide opportunities for those who cannot find opportunity elsewhere such as those with ECHPs or disadvantaged young people. From September they will be working with Cumbrian schools located in highly deprived areas enabling them to visit Low Becks and provide class-based learning materials.

## 4.2 Non-state funded delivery of training

Students over 19 may access university, or indeed may return later to education as a self-funding student. Students at University pay their own fees and upkeep and are supported by a loan system. Mature students at Levels 4 and 5 are soon to be able to access loans for three years of study in certain subject areas through the [Lifelong Loan Entitlement](#).

The University of Cumbria is the only in county provider of any land-based learning at Level 6 to 8; specifically conservation, outdoor and forestry. SRUC and Myerscough are the next nearest deliverers in the other HE land-based training, with other providers further afield (Annex I).

A majority of continuous professional development (CPD) training for employers is paid for by those employers and either provided commercially at cost privately, or developed and delivered in house (Annex J & K). In the land-based sector there are a few programmes designed to fulfil the needs of subsectors that are partially supported by charity or state sources. The Rural Development Programme for England used to support ongoing CPD and the [Forestry Commission](#) have a current programme, though it is fully subscribed for the foreseeable future (Annex L).

Accreditation of CPD is most often completed through professional bodies as ‘chartered status’ though some subsectors are still developing this (eg. TIAH, [CMA](#)). The [Royal Society of Forestry](#) has a certification process that helps to combine credits from short courses into a professional qualification. ‘Credit accumulation’ and ‘assessment of prior learning’ remain two long standing approaches that due to various reasons have not been universally adopted.

Short course programmes provide individual skill certification and the opportunity to learn about new processes, procedures, techniques, equipment and legislation (eg [John Jones Training & Assessment Services](#), [LANTRA](#)). Longer ‘development programmes’ are developed and followed to enable management and soft skill types of learning – these are not always accredited.

**CASE STUDY – CANOPY by Cumbria Woodlands**

This is an online training resource, produced during and after Covid. The short videos and other supporting material form the basis of learning opportunities that provide CPD for professional foresters.



Degree level programmes report using the resource as it is focussed on UK forestry and practice and features multiple use approaches (nature, recreation) – as well as timber production.

Online materials were widely developed by colleges and universities during covid, and this project develops, using **higher production values**, the idea that learning can take place at ‘any venue’ (connectivity permitting) and at any time. The next stage of development involves commercialising and monetising the approach and expanding the scope within and beyond the industry. Canopy forms part of the Forestry Training Fund.

**4.3 Summary table of current delivery and providers**

A compendium of providers and provision can be found in Annexes F to L, and a summary (Table 2) is laid out below, indicating the main programmes in the land-based & allied sectors, and how and by whom they are delivered. The middle columns have superscript numbers to show which course is provided by which institutions in each category. The far-right column indicates where more detail can be found.

Complexity is the main challenge for those seeking training.

Table 2 – Overview of Current Provision for Cumbria.

Provision	Course Offer	Delivery Agents	Annex
<i>Readers note: The superscript numbers from the 'course offer' column, relate to the 'delivery agents' by the same superscript number</i>			
<b>Pre 16</b>	Careers advice <sup>1</sup> Adhoc programmes <sup>2</sup>  Level 1 programmes <sup>3</sup>	Schools, Career Hub /CCC/ Inspira <sup>1</sup> Westmorland Agricultural Society <sup>1,2</sup> Stem Dairy <sup>1,2</sup> Countryside charities <sup>2</sup> Ullswater College <sup>1,3</sup>	Annex F
<b>16-19 / FE college provided in County</b>	Level 2 & 3 programmes Agriculture <sup>1</sup> Animal Care <sup>2</sup>	Myerscough (with Ullswater) <sup>1</sup> Myerscough (with Furness FE) <sup>2</sup> Kendal <sup>1,2</sup>	Annex F
<b>16-19 FE college provision provided by near neighbouring FE institutions</b>	Agriculture <sup>1</sup> Agricultural engineering <sup>2</sup> Forestry <sup>3</sup> Arboriculture <sup>4</sup> Horticulture <sup>5</sup> Conservation & Ecology <sup>6</sup> Animal care <sup>7</sup> Golf & Sports turf <sup>8</sup> Game <sup>9</sup> Land-base <sup>10</sup>	Myerscough <sup>1,2,4,5,6,7,8</sup> SRUC <sup>1,2,3,4,6</sup> Craven College <sup>1,5,6</sup> Morecambe and Lancaster <sup>2,10</sup> Kirkley Hall <sup>1,2,3,5,6,8</sup> Askham Bryan <sup>1,3,8,9</sup>	Annex F
<b>16-19 Non-college</b>	Horticulture	NR Training	Annex F
<b>Apprenticeships</b>	Agriculture <sup>1</sup> Agricultural engineering <sup>2</sup> Forestry <sup>3</sup> Arboriculture <sup>4</sup> Horticulture <sup>5</sup> Conservation & Ecology <sup>6</sup> Animal care <sup>7</sup> Equine & Farrier <sup>8</sup> Golf & Sports turf <sup>9</sup> Game <sup>10</sup>	Kendal <sup>1,7</sup> Myrescough <sup>1,4,8</sup> Craven <sup>1,5,6</sup> Kirkley Hall <sup>7</sup> Askham Bryan <sup>1,3,9,10</sup> Lancaster & Morecambe <sup>2</sup> UoC <sup>3</sup> (at level 6)	Annex F & G
<b>SEND</b>	General land based <sup>1</sup> , horticulture <sup>2</sup> and agriculture <sup>3</sup> and equestrian <sup>4</sup> based support	Ullswater College <sup>3</sup> (with Myerscough) Kendal College <sup>3</sup> Ernest Cook <sup>1,3</sup> Growing Well <sup>2</sup> Grow West <sup>2</sup> Cumbria Rural Skills Academy CIC <sup>4</sup> Cowran Estate <sup>3</sup>	Annex F
<b>Degree / HE</b>	Agricultural programmes <sup>1</sup> Conservation & ecology programmes <sup>2</sup> Forestry programmes <sup>3</sup> Outdoor education <sup>4</sup> Arboriculture <sup>5</sup> Farriery & Equine <sup>6</sup> Golf & sports turf <sup>7</sup> Animal science & care <sup>8</sup>	University of Cumbria <sup>2,3,4</sup> Myerscough (UCLAN) <sup>1,2,5,6,7,8</sup>  Kendal College <sup>4,8</sup> Craven <sup>2,8</sup> Lancaster University <sup>2</sup>	Annex F & I

Provision	Course Offer	Delivery Agents	Annexes
<b>CPD certified</b>	Array of Technical ‘tickets’ and skills <sup>1</sup>  Dry Stone Walling <sup>2</sup> Hedgelaying <sup>3</sup>	J Jones training <sup>1</sup> Andy Lowe training <sup>1</sup> All 4 FE colleges can, Kendal <sup>1</sup> do All neighbouring Agricultural colleges <sup>1, 2, 3</sup>  Dry Stone Walling Association <sup>2</sup> Hedgelaying Society <sup>3</sup>	Annexes F, J, K and L
<b>CPD accredited Professional competence frameworks</b>	Agriculture <sup>1</sup> Horticulture <sup>2</sup> Forestry <sup>3</sup> Land agency <sup>4</sup> Countryside management <sup>5</sup> Equine <sup>6</sup>	TIAH <sup>1,2</sup> RICS <sup>4</sup> ICF <sup>3</sup> CMA <sup>5</sup> BHS <sup>6</sup>	Annex F
<b>Other CPD non accredited</b>	Vast array of internal and adhoc specialist events	All employers reported providing in house training and offered some training and awareness raising to the wider industry where they had expertise	Annex F and J
<b>New Farm Entrant</b>	Agriculture	On behalf of Defra	<a href="#">NFU</a>

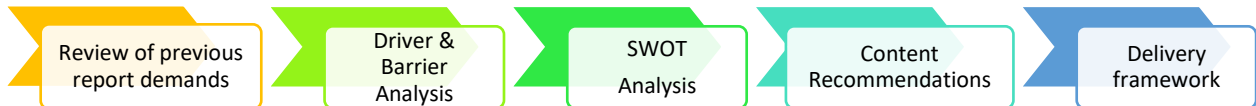
Table 3 – *Imminent Planned Delivery Developments*

Provision	Curricula Offer	Delivery Agents	Annex
Cumbria Curriculum	Preschool to 18 All National Curriculum	All schools	Annex F
T Level	Agriculture, Land Management & Production	William Howard School, Brampton (2024)  Myerscough College, Preston from 2023 [negotiations are on-going as to if this will be on offer in Penrith]  City of Sunderland College (2023)  Askam Bryan College (2023)  Kendal College (2023)	Annex H

## 5 – GAP ANALYSIS

This section employs a step wise critical analysis (Figure 4) of the results of previous land-based skills training needs reports, needs of interviewed employers and current Cumbrian provision to identify current and future gaps in provision.

*Figure 4 – Critical Gap Analysis: Land Based Sector*



Step 1 – Review of how provision in Cumbria addresses demands from previous reports

Step 2 – Driver and Barrier Analysis

Step 3 – Summative SWOT analysis of results from this current work, particularly the drivers

Step 4 – Content recommendations

Step 5 – Delivery framework recommendations (to include governance, resourcing and delivery)

### 5.1 Review of provision and demand recognised by previous reports

Following on from the content demands identified in Table 1 of this report, Table 4 below summarises the state of play about available CPD provision. A range of training provision is also under development due to come online from September 2023. There are, nevertheless, still many CPD gaps, for the new agendas (eg climate change, nature recovery, net zero) and some of the allied sectors (eg heritage land management and renewable energies) which will be addressed later in Section 5.4.

Areas where opportunity exists include: biodiversity restoration, ‘smart’ technologies, ICT & Business skills, agroforestry, hill farming, public engagement skills and outdoor/environmental education.

Table 4 – Gap analysis addressing previous report demands (Table 1)

Content required	Available (CA)	In development (ID)	Gap in Cumbria	Provider
<b>Public Goods &amp; Nature Recovery</b>				
Mapping				UoC
Ecological surveying				Craven, UoC
Soil Survey				FA
Natural flood management				Farmer Network; FBA
Habitat and species ID				Craven, CWT, FSC
Habitat restoration				
Peatland restoration				SRUC /NPG
Machinery tickets				JJTA, LT
Practical skills				LT, NHS, DSWA,
Carbon & Net zero				UoC
Biodiversity net gain				
Archaeology				
Geology				
ELMS				Farmer Network
Climate change on farming				
Water management				FBA part
Sustainable soil management				FA part
<b>Farm Skills</b>				
Animal Health & welfare				JJTA, NRTLtd
Livestock husbandry				JJTA, WCAS
Tickets for machinery				JJTA, WCAS. LT
Grazing regimes				
Regenerative & Nature friendly farming				RtN
Precision/ Smarter farming				
Sheep dog training				Craven
Hill farming				
Field boundaries				RSH, JJTA, DSWA, NHS
Tree surgery				JJTA, LT
Gamekeeping & shooting				
Compliance requirements				FA, JJTA, WCAS, NRT Ltd
Technological advances				
<b>Business Skills</b>				
Farm business planning				Farmer Network, UoC
Marketing and customer services				
Whole farm planning				Farmer Network
Grant applications				Farmer Network
Digital skills				
Communications				
People management				
Data collection and analysis				
<b>Forestry &amp; Woodlands</b>				
Trees and scrub				CW
Woodland advice				CW
Design planning				
Woodland creation				CW
Coppicing				BHMT
Agroforestry incl. wood pasture				
<b>Rural &amp; Visitor Economy</b>				

Farm & wildlife tourism				
Guiding				
Farm diversification				Farmer Network
Public engagement				
Environmental education				
Outdoor education				UoC, Kendal College
Traditional crafts				BHMT part
Greenwood working				BHMT
Wool				

Provider acronyms key: BHMT – Bill Hogarth Memorial Trust; Craven – Craven College; CW – Cumbria Woodlands, CWT – Cumbria Wildlife Trust, DSWA – Drystone walling Association; FA – FBA- Freshwater Biological Association; FSC – Field Studies Council, JJTA – John Jones Training & Assessment, Lowe- Lowe training; NHS – National Hedgelaying Society; NPG – Northern Peatland Group; NRT Ltd – Newton Rigg Training Ltd; RtN – Roots to Nature; RSH – Rural Skills Hu; UoC – University of Cumbria, WCAS – Westmorland County Agricultural Society

## 5.2 Drivers & Barriers

Drivers include: climate change, food security, biodiversity loss, changes in Government policy and contemporary societal issues.

Barriers include: leadership & co-ordination, finance & funding, competition within the land base for resources, land ownership & management control, lack of expertise, loss of county’s land-based college, geography and expectation.

### **Driver: Climate Change**

In the land-based sector the major issue, whether in production, nature conservation or related leisure & tourism, is the impact of climate change.

Climate change requires **adaption**, changing practice and procedure to fit in with the emerging climatic patterns, growing seasons etc.

Businesses will also have to **mitigate** adverse consequences such as flooding and drought. The water supply industry faces significant challenges in this regard. This is particularly important for the horticultural sector, both production and landscape, for plant management.

Preventing further climatic deterioration is still the part of the climate change issue which requires all businesses to change, not just land based industries. Training regarding **awareness of, and how to, take appropriate action** need developing, promoting and rolling out widely. Reliable **auditing** and **action planning** skills need instigating, leading to the **restoration of our peatlands** to act as carbon stores.

For land managers, the issues of **offsetting, carbon capture** (trees, peat and soil) and **greenwashing** in this area are clear training and awareness needs. Offsetting carbon, before every single carbon reduction approach is tackled is a false approach, yet land is already being bought up in large swathes and farm tenants evicted in a move to provide locations for these ‘mistaken’ approaches to carbon sequestration.

Finally, the issue of **carbon emissions** and their reduction introduces both large- and small-scale **renewable generation** projects. Large scale projects tend to get the most attention as it is alleged to be ‘transformatory’, yet a vast amount of **small scale and individual development** can deliver a similar amount of change for a similar investment. The technologies exist for effective small-scale

deployment, and vast numbers of installations would force costs down. The cost saving would then reduce the bottom line of multiple rural businesses, which themselves then support other local rural business, for example in maintenance and repair. The first training need is in **awareness**, the second in **installation** and **ongoing maintenance**. Previously, the domestic solar panel industry was gaining effective traction, and now with hindsight, seems a very wise decision to those who took up the opportunities. More opportunity exists in **solar**, but also in **small wind, hydropower** in certain locations. Systems that use excess generation power to store energy also have a land requirement (such as seen at Dinorwig PHES in Wales, pressurised air systems, even battery arrays).

#### ***Driver: Food security***

Business representatives report that a lack of broad national policy in this area makes future planning for farmers problematic at best. **There is still a clear on going need to increase productivity and efficiency**. The routes to that outcome lie broadly in what is called ‘**smarter**’ farming. The use of more technological, automated and data driven systems and equipment will increase. Both new entrants and the current workforce will need training in these areas. The same is true for those working in the maintenance and support industries.

#### ***Driver: Biodiversity Loss***

International obligations as ratified at COP26 and COP15 expect the UK government to protect 30% of the state’s land area by 2030 (‘30 x 30’) for nature conservation.

Biodiversity loss through habitat and species decline for the UK has reached an all-time high. The most recent report by the [Botanical Society of Britain and Ireland](#) (2023) indicates that alien plant species now out-number indigenous species which along with intensive agriculture has negatively impacted on our biodiversity. Consequently, farmers will have two potentially conflicting trends driving their development. Becoming more productive, while ‘making room for wildlife’. Nature based organisations are looking to work with other land managers on that same agenda. They are also working towards the various recommendations of the [Lawton Review](#), trying to develop land so that nature has more space, better habitat and more connectivity.

Employment in the voluntary nature sector in Cumbria is reported to have increased by 20% to around 250 professional paid roles and in the Cumbrian public sector, around 100 roles exist, with Natural England report difficulties in finding the appropriately qualified new entrants.

#### ***Driver: Government Policy***

In response to climate change, food security and biodiversity loss, the Lawton Review and latterly Brexit, the policy environment has reshaped. **Agricultural Transition** now expects farmers and farmland to provide a wider range of public goods and ecosystems services, which have resulted in a plethora of new requirements, regulations and grants, all of which need to be understood and acted upon by the land-based sector. **The Environment Act 2021** is the latest piece of legislation to have an impact on practice and process and therefore on training need. The new agency the [Office for Environmental Protection](#) will create sizeable job opportunities (some may move from other agencies such as EA and NE, but these staff will then need replacing). Compliance training for



businesses, especially over pollution control will be required (e.g. diffuse pollution regulation and compliance for farm businesses).

Government policy also seeks to increase tree cover to address many of the above drivers. Driven by the [England Tree Action Plan](#), the land-based and allied industries will be expected to engage with this agenda. A whole host of actions will be required as a result with **significantly higher employment** at all levels and thus a training need. Areas of skill development include:

- **Tree nursery, Planting & establishment & Protection,**
- **Management** of existing woodland,
- Ensuring **harvesting** continues to produce product at the necessary value to drive this cycle economically,
- The management of **orchards**, and the promotion of **agroforestry** (all treed area types).

There is a need to demonstrate the **positive business benefits** of all types of woods, forests and treed areas, as well as their **multifunctional benefits** for leisure and recreation, enhancing nature, the emerging health and wellbeing agenda, flood and soil management.

The cycle is completed by woodlands providing an ideal **learning environment** through forest schools, and other initiatives who help to inspire the next generation of forest and land managers.

#### ***Driver: Contemporary Societal Issues***

The '**Cost of Living**' crisis and **Covid** have been small scale drivers, with people reassessing their current employment, in both directions, into a more 'balanced and productive lifestyle and away from the notoriously underpaid land management employment sector. Levels of responsibility, autonomy, expertise and decision-making compared to much of the rest of the private sector are often much more demanding and poorly paid for equivalent level job roles. Furthermore, finance managers, general operation support staff, marketing and similar 'generic roles' are harder to fill as pay must be affordable and in line with countryside professionals and is often out of sync with the wider market in other employment sectors. For Cumbria, this is exacerbated by our USP, where house prices are up to fifteen times higher than the average land-based wage (within the National Park in particular).

Increased demand for land-based employment is demonstrated by the 800 applications for the first 25 places on the Level 6 Professional Forester apprenticeship programme at the University of Cumbria at the end of 2022.

The need for more reliable, nationally self-sufficient and cheaper energy will focus attention on the opportunities presented by rural land in county's like Cumbria underpinned by forthcoming proposed changes in [Planning Policy](#) to allow onshore wind turbine development.

A particular societal issue for agriculture is the topic of **succession**. The demographic of farmers in Cumbria is no different from national trends and is exacerbated by many farming families not having a succession plan. Cumbria also has additional challenges such as our physically demanding farming systems, farming families encouraging their children to look at other careers, the current uncertainty related to Agricultural Transition and a general feeling of being undervalued by many other areas of society. All these factors lead to a need for succession planning.

**Barrier: Leadership and co-ordination**

In Scotland SRUC is front and centre of all policy and development in land-based training, yet there is still room for other innovators. In Lancashire Myerscough holds a clear position in influencing strategy as well as implementation. However high levels of goodwill, co-operation and partnership working are in Cumbria, there is a **leadership and co-ordination vacuum**. Complicating this further is the need to ensure leadership is objective, independent and able to represent all subsectors or business types.

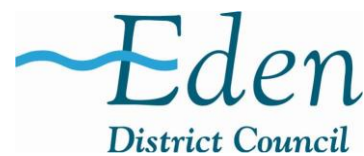
**Barrier: Financing & Funding**

A **funding strategy** is very much needed at all levels of land-based training. There is **no effective levy system** due to employer size and training relies on programmes on the DfE list or self-financing by the applicant or by an individual business. Requirements are:

- **New programme development** requires revenue & capital
- **Additions to current programmes** also have a revenue and capital need
- **Leadership co-ordination** needs initial capital investment in the development stage, but also a fair and equitable method of ensuring an ongoing comprehensive service
- Learners will need supporting, whether through **travel schemes** (such as those created by Lancaster & Morecambe College or Eden District Council), **fee support** or **living stipends**.

**CASE STUDY: tailored transport schemes**

**Eden District Council**, as part of their Inspiring Eden initiative, has been helping young people access training and learning through a **bursary scheme**. A £30,000 grant has been awarded to Alston Moor Federation to provide a subsidised bus for post-16 student to attend New College in Durham. They also provide £30,000 to Myerscough for the provision of non-means tested travel subsidy to enable students to get to Ullswater Community College. A third strand allows for individuals to apply direct to EDC for money towards their annual educational travel costs.



**Lancaster & Morecambe College** runs three **bus routes out of southern Cumbria** to their college just outside Lancaster. The routes accommodate students living along:

- Barrow-Ulverston-Milnthorpe
- Windermere-Kendal-Crooklands
- Sedbergh-Kirkby Lonsdale-Whittington.



**Barrier: Competition within land base for resource**

There have been long running examples of **tension between farm, forest and nature interests**. Partnership working has addressed and aired many of these concerns, but not truly resolved inherent need for each sector to promote their agenda. There is also **tension within subsectors** for

resource, for example FIPL (Farming in Protected Landscapes) is a competitive fund and thus there are 'winners' and losers' in development funding.

### ***Barrier: Land ownership and management control***

The majority of rural land in Cumbria is owned or tenanted by farmers, much of which is **multifunctional**; in other words, they have a primary land use with several secondary land uses operating upon them. For example, grazing land can support biodiversity, flood management and recreation & leisure. These multi-use needs along with a changing policy environment, can create **tensions between differing land management interests and objectives**.

Without knowledge and expertise covering a range of land use demands, change is less likely and this also applies to advice networks. Even when a farm is being passed down the generations, through succession, there are multiple training and knowledge needs.

### ***Barrier: Lack of Expertise***

To facilitate and administer the necessary additional teaching, training and assessment, **more instructors are needed**, and they need to be trained and assessed.

Many of the land-based subsectors are relatively **poorly paid** for the energy and expertise needed. This might suggest that a **progression into teaching** others to enable effective peer-to-peer learning. A further barrier of geography exists too exacerbated by **a lack of affordable housing and long travel distances**. It is reported that only two academic staff at the University campus at Ambleside can afford to live in the National Park.

### ***Barrier: loss of county's land-based college***

Without Newton Rigg, there is no longer an institution wherein a group of experts can exert focus and collective knowledge. Educational professionals with expertise in land-based training are already few and far between. There are **limited opportunities to develop the next** generation of trainers reducing the expert pool and any mentoring opportunities are much diminished.

### ***Barrier: Geography***

**Poor travel times, distances and availability of public services** combine to make accessing education problematic for some groups, notably those with EHCPs and young people without a driving licence or funds to afford private vehicles. Wherever a programme is delivered, it will be in the 'wrong place' for many of Cumbria's population; ie a **locational mismatch of supply and demand**.

### ***Barrier: Expectation***

**Knowledge of the opportunities is an initial barrier** to those seeking a career in land-based industries. Some cases are obvious, one of the assured ways to get into farming is to be born into a

farming family. However, **more promotion is required** to demonstrate that there are opportunities for engineers, data analysts, marketeers, financial experts and in advisory services, as well as direct delivery. **Career entry and career progression opportunities need to be promoted** more effectively and moves toward better pay. In nature conservation employment specifically, security of contract is a continual challenge as many jobs rely on project funding of 3 to 5 years.

### ***Barrier: The 'Hard to Reach' farmers***

There is a significant group, estimated at around 15 – 25% of farmers who have received SFP (Single Farm Payment), and not wholeheartedly engaged in much of the other support agenda for farming. It leaves them more vulnerable to the loss of SFP as they will not have previous experience of engagement with a range of advice and support schemes.

It is unlikely that they will have the knowledge, skills or experience to compete to gain funding from many of the programmes under ELMs on their own. They tend not to engage with advisors or have limited access to or unwillingness to pay for agents or support groups (whether to utilise data and modern approaches, or to access grant funding.). They are often ICT poor, despite having to be part of Defra's 'digital by default' programme, they are not as capable as the majority. They often experience a poor appreciation of the Government's agenda.

Consequently, this group is vulnerable to following 'opting out' approaches to farm management. By not engaging with schemes, advice or diversification, they may choose to increase stocking numbers and densities and employ increased inputs, such as fertilisers, contrary to current doctrine. By employing these strategies it is possible they may not increase their productivity greatly, whilst at the same time limiting their 'public good' and damaging the environment.

Opportunity does exist for them to engage with agencies they do **trust** and provide more person-to-person **friendly approaches to training** and imparting of information. Upskilling all farmers in the **use and implementation of ICT and data management** is key to the future, this group more so.

### 5.3 SWOT Analysis

The following SWOT (Table 5) reflects the summative responses of employers, providers, previous published works and the expertise of the authors of this report.

<p style="text-align: center;"><b>Strengths (within County)</b></p> <ul style="list-style-type: none"> <li>• High quality and quantity of landscape</li> <li>• High level of Natural Capital</li> <li>• World Heritage and National Park and AONB</li> <li>• High quality dairy</li> <li>• High importance hill farming (world heritage)</li> <li>• Nationally significant commons</li> <li>• Strong local community</li> <li>• Existing networks of facilitation &amp; discussion groups</li> <li>• Apprentice delivery</li> <li>• Superb effort made to make up for NR loss</li> <li>• Wide range of 16-19 delivery</li> <li>• National school of forestry</li> <li>• Good delivery of nature-based degree and post degree study</li> <li>• Significant future work opportunity in nature</li> <li>• Good quality of advice services for land management</li> <li>• Some well-established partnerships</li> <li>• Well-functioning careers service</li> </ul>	<p style="text-align: center;"><b>Weaknesses (internal to County)</b></p> <ul style="list-style-type: none"> <li>• No land-based learning institution</li> <li>• Strategic development and leadership</li> <li>• Competitive spirit / insufficient levels of collaboration by providers / fragmented delivery / progression</li> <li>• Cost issues for non-specialist colleges and non-college providers for SEND students</li> <li>• Dispersed rural geography</li> <li>• Lack of interconnected transport systems</li> <li>• Low pay, retention problems and affordability of living (housing)</li> <li>• Uncertainty over unitary authorities</li> <li>• Provision from out of county ‘draining’ talent and (when provided in county draining some resource for overhead)</li> <li>• Resource for SEND provision</li> <li>• Sometimes poor information flow</li> <li>• Weak cross subsector engagement</li> <li>• Internal subsector competition</li> <li>• Lack of local land-based sector careers advice</li> <li>• Price for land management advice still considered ‘too high’ by too many</li> <li>• Uncertainty over T levels (particularly for mature FE students)</li> <li>• Little provision at supervisory and first level management</li> <li>• Shortage of technical and professional foresters</li> <li>• Shortage of trained and experienced advisors</li> <li>• Some perceived weakness of ‘soft skills’ in new entrants</li> <li>• The ‘hard to reach’ farmers</li> </ul>
<p style="text-align: center;"><b>Opportunities (external drivers)</b></p> <ul style="list-style-type: none"> <li>• Climate change (advice and change mgt)</li> <li>• Improving technologies lead to smarter farming</li> <li>• Data availability and use improves decisions</li> <li>• Government policy (eg ELMS etc., England Tree plan)</li> <li>• Potential to link training, accreditation and grant in agriculture.</li> <li>• UN sustainability goals COP 26 / COP 15</li> <li>• Local government reorganisation</li> <li>• Shared prosperity funding</li> <li>• Environmental projects can attract charitable funding for training.</li> <li>• Retirees engaging in leading and mentoring,</li> <li>• Development of lifelong accreditation processes (cf. CMA, TIAH, RFS, Lifelong Loan Entitlement)</li> <li>• Embracing the Cumbria Curriculum</li> </ul>	<p style="text-align: center;"><b>Threats (outside County)</b></p> <ul style="list-style-type: none"> <li>• Climate change (flooding, drought, exceptional weather events)</li> <li>• Biodiversity loss</li> <li>• Call of the ‘city’ – wealth and ‘brain drain’</li> <li>• Retirement and second homes remaining unengaged</li> <li>• Cumbria remains lagging even in a sector where it should be excelling.</li> <li>• Training (and advice system) still not valued sufficiently</li> <li>• World is changing faster than Cumbria appears capable</li> <li>• Emphasis is overly on training course outcome and not achieving and improving competence</li> <li>• Succession and new entrants in agriculture</li> </ul>

From this SWOT analysis it is evident that there are FOUR key themes emerging:

- Content
- Governance
- Resources
- Delivery

Whilst the main thrust of this report has been to address content gaps, the response from many employers and providers, and the considered opinion of the authors here, is that in order for the county to provide the right combination of land-based training needs at the most appropriate levels, the other three areas need addressing synchronously.

### 5.4 Content Recommendations

An indicative programme content is suggested, along with delivery method and potential delivery agent suggestions. These are summarised on Table 5 and provided in more details in Table 6 (eight sub tables). To address the content gaps, we propose a two-phase priority approach:

1. Adopt training programmes already developed and accredited elsewhere through direct invitation or franchise, whichever is deemed the most appropriate
2. Develop our own training programmes (labelled: To Be Developed - TBD)

#### Provider key:

ACT- Action for Communities in Cumbria	ICF – Institute of Chartered Foresters
AHDB – Agriculture & Horticulture Development Board	JTA Ltd – John Jones Training Limited
CaFs – Cumbria Action for Sustainability	KC – Kendal College
CCC – Cumbria County Council	LANTRA – the land-based training & assessment organisation
CLA – Countryside & Landowners Association	LDNPP – Lake District National Park Partnership
CLNP – Cumbria Local Nature Partnership	LEAF – Linking Environment & Farming
CuCC – Cumberland County Council	MBP - Morecambe Bay Partnership
Confor – Confederation of Forest Industries	NE – Natural England
CVS –Cumbria Voluntary Service	NFU – National Farmers Union
CW – Cumbria Woodlands	NR Ltd – Newton Rigg Training Ltd
CWT – Cumbria Wildlife Trust	SRUC – Scottish Rural College
EA – Environment Agency	TA – Farm Tenants Association
FC – Forestry Commission	TFN – The Farmer Network
FBA – Freshwater Biological Association	TIAH – The Institute of Agriculture & Horticulture
FE4 – the four Cumbrian Further Education Colleges	UoC – University of Cumbria
FFCC – Food, Farming & Countryside Commission	UU – United Utilities
FLD – Friends of the Lake District	WFCC – Westmorland & Furness County Council

Table 6 – Summary of Training Content Needs for Land-Based and Allied Sectors

<p><b>C1 Developing generic skills for land-based industries raising standards at all levels</b></p> <p>C1.1 Soft skills  C1.2 Business and financial acumen  C1.3 Supervisor and first level management (level 5)  C1.4 Managing contracting business  C1.5 Working with the public &amp; engaging with communities  C1.6 Land Management advice provision</p> <p><b>C2 Tackling Climate Change</b></p> <p>C2.1 Adaptation &amp; migration to climate issues  C2.2 New Enterprise opportunities  C2.3 Green financing./ raising private finance  C2.4 Integrating climate issues into all programmes  C2.5 Practical tree establishment  C2.6 Practical peat restoration</p> <p><b>C3 Improving Productivity &amp; Efficiency in Farming</b></p> <p>C3.1 Smarter Farming  C3.2 Climate adapted farm management  C3.3 Nature friendly productive systems  C3.4 Sustainable growing  C3.5 Diversification  C3.6 Carbon audit and planning  C3.7 Addressing succession  C3.8 Hard to Reach Farmers</p> <p><b>C4 Supporting the Delivery of the England Tree Action Plan</b></p> <p>C4.1 Level 1 forest/woodland operative programme  C4.2 Level 3 Forest operative  C4.3 Level 6 professional forester  C4.4 Agroforestry, pastoral forestry, farm woodland, farm trees &amp; hedgerows  C4.5 Multifunctional forestry  C4.6 Awareness of other land managers  C4.7 Disease management  C4.8 Woodland creation and design for non-foresters  C4.9 Use and maintenance of large forest equipment  C4.10 Encourage adoption of Forest Training Fund  C4.11 Better management of current resource</p>	<p><b>C5 – Addressing Natural capital and the Lawton Review</b></p> <p>C5.1 Engaging with government support programmes  C5.2 Promoting natural capital and nature recovery  C5.3 Green financing  C5.4 Farming with nature  C5.5 Managing peatland sites  C5.6 Power driven machinery in nature conservation sites &amp; contexts  C5.7 Partnership working  C5.8 Coastal and seascape management  C5.9 River, water supply &amp; flood management  C5.10 Raising accreditation levels</p> <p><b>C6 - Addressing Sub-sectoral training needs gaps</b></p> <p>C6.1 Sustainability  C6.2 On farm non-farm diversification enterprise  C6.3 Advanced (electronics, IT &amp; robotics) agricultural engineering  C6.4 Data gathering, handling and interpretation  C6.5 Environmental chemistry &amp; analysis  C6.6 Climate Change adaptation  C6.7 Game  C6.8 Equine  C6.9 Outdoor recreation  C6.10 Extraction industries  C6.11 Heritage industry  C6.12 Water supply industry</p> <p><b>C7 – Enhancing the experience of SEND/ECHP students</b></p> <p>C7.1 Land-based Level 0 (a programme utilising hand tools only)  C7.2 GCSE Natural History</p> <p><b>C8 - Co-ordinating careers advice, information and guidance</b></p> <p>C8.1 Single reliable or co-ordinated source of career and training advice  C8.2 Bootcamp style intensive reskilling / upskilling programmes for land-based operatives  C8.3 Bootcamp style upskilling at supervisory, first tier management level  C8.4 Employing the Cumbria Curriculum</p>
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Table 7 – Suggested Content Tables for Gaps

1.0 Developing generic skills for land-based industries raising standards at all levels							
Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
1.1	Soft Skills	Interpersonal skills, Communication Leadership, Time management, Problem solving, Conflict management, Negotiation, Partnership working and co-design, public engagement tools for decision making.	5-7	s/m	annual long programme or series of short courses repeating in the year at different venues	Adopt/adapt <a href="#">LANTRA Level 5</a> Annex M	Chamber of Commerce
1.2	Business and financial acumen	Skills of the entrepreneur, understanding accounts, Selling, marketing, contracting & subcontracting, business planning, decision making,	5	m	Bi-annual short programme	Adopt/adapt <a href="#">LANTRA Level 5</a> Annex M	Chamber of Commerce
1.3	Supervisory and first level management (Level 5)	Employing staff, developing staff, training staff, delegation, discipline, HR, financial management, time management, team management, organisational management	5	m	biannual short programme	Adopt/adapt <a href="#">LANTRA Level 5</a> Annex M	Chamber of Commerce / FE4
1.4	Managing contracting business	Skills of the entrepreneur, understanding accounts, Selling, marketing, contracting & subcontracting, business planning, decision making, employing staff, developing staff, training staff, delegation, discipline, HR, financial management, time management, team management, organisational management	5	s/m	Short programme	Adopt/adapt <a href="#">LANTRA Level 5</a> Annex M	Chamber of Commerce



Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
1.5	Working with the public / engaging with communities	Public engagement tools for decision making, delivering talks, organising and facilitating event, running work parties, organising citizen science, co-design with others	5-7	s/m	Short programme	TBD	ACT / CVS / FLD / CWT / TFN
1.6	Land management advice provision	Knowledge and workings of grant and other support schemes. Soft skills. subsector specific knowledge. Awareness of practical implication on property (farm) management (example see <a href="#">Hill Farming for Conservation Professionals</a> ). Viewing farm businesses in the round not just by subsector.	5-7	s	Short programme	TBD	Consortia of farm and nature, private land agents and NE

## 2.0 Tackling climate change including brand new delivery across all levels

Reference	Subject / topic area	Descriptor / indicative content	Level (0-7)	Short, medium, long term	Delivery length / Method	Development Requirement	Suggested Delivery Agent
2.1	Adaption / mitigation to climate issues	Understanding and action planning to incorporate climate change into planning & operations, climate science (GHCs etc..) drivers, land management solutions for A and M– eg peat woodland, flood management etc..	4-7	s	long programme or series of short courses	TBD	CAfs / CLA
2.2	New enterprise opportunities	Micro generation of renewables Carbon off setting, Delivery of public goods	5-7	s/m	Short courses	TBD	CLA
2.3	Green financing, raising private finance	Carbon offsetting, carbon warehousing, biodiversity offsetting, the Petteril Valley project, woodland code	6	m	Short courses	TBD	
2.4	Integrating climate issues into all programmes	Implications and practical actions. Global climate, science fundamentals, climate change and consequences. Understanding sustainability principles, life cycle analysis, embedded carbon / energy, energy efficiencies to be gained The '7 R's'. Mitigations, amelioration and adaptation & prevention. Offsetting. Green financing & natural capitals. Biodiversity offsetting, grants regulation government policy Auditing Scope 1, 2 and 3 emissions. Greenwashing.	1-7	m	Session modification and/or module development	Collaboration between experts and course developers	CAfs?
2.5	Practical tree establishment	Tree: level 1 forestry programme (see 4.1)	3	s/m	Year-long programme & Short courses	TBD	FC
2.6	Practical Peat Restoration	Operational elements of peat restoration	3-4	s/m	Short courses	TBD	SRUC /NPG

3.0 Improving productivity & efficiency in farming.							
Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
3.1	'Smarter' farming	Use of data, IT, GPS, remote sensing, drones; Use of robotics, genetics; benchmarking; Controlled environment farming; energy efficiencies	4-7	M	long programme or series of short courses	TBD	SRUC / Myerscough / TIAH
3.2	Climate adapted farm management	Auditing, Mitigation, Adaptation, new cropping / extensification options, flood mitigation, pollution reduction, climate science and drivers fundamentals, jargon busting eg GHCs. Alternative fuel and energy systems: CHP, heat pumps, photovoltaics, solar hot water, smart grid technologies, building envelopes Grey water systems ect... Waste management systems	4-7	M	Short courses	TBD	LEAF / SRUC
3.3	Nature friendly productive systems	Managing holding for production and nature. Accessing grant systems. Deer. Regenerative farming, making room for nature, engaging with environmental organisations, retaining productive goals, maximum sustainable output (MSO), transition farming & use of biofuels Waste management systems, reedbeds, grey water recycling. Slurry management and regulations	5-7	M	Short courses	TBD	TFN / CWT/ LEAF Nature friendly farming

Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
3.4	Sustainable growing	growing under glass / plastic, hydroponics aquaponics, vertical farming alternative cropping. Use of micro renewables. Organics, permaculture, biodynamics, adapting to climate change	4-7	m/l	Short courses	TBD	AHDB /TIAH  Soil Association
3.5	Diversification	Contracting, off farm, on farm and non-farm, on-farm, renewable generation, 4Ps, SWOT, PESTLE, options, market analysis, business planning. Grants available for capital and revenue	4-5	M	Short courses	TBD	TFN
3.6	Carbon audit and action planning	Choosing an auditor, understanding carbon use and savings, planning, implementation, transition farming, carrying out an audit-what data do I need?	5-7	s/m	Short course	None	Eg. <a href="#">Farm Carbon Audit</a> & TFN / Rivers Trusts
3.7	Addressing succession	How to transfer ownership; psychological mental health issues	3-5	s/m	Short course	TBD	TFN, NFU, CLA, TA
3.8	Hard to Reach farmers	How to engage with competitive grant programmes Engaging with government agendas Appreciating multifunctionality in land management Applying ICT & data analysis to their business Fundamentals of smarter farming Fundamentals of farming with nature Fundamentals of good environmental practice (air, water, soils)	2	s	Boot camp approach  OR  Use of <a href="#">Sustainable Livelihoods model</a> as in Peak District	TBD	TFN (trusted imparter of knowledge)

4.0 Supporting the delivery of the England Tree Action Plan							
Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
4.1	Level 1 forest / woodland operative programme	Use of minimal / no power driven equipment. Fencing, tree planting and establishment, weed suppression / moisture retention, pest control, coppice re-establishment, small woodland operations. Management of other habitats present. Disease management operations.	1	m	long programme or series of short courses	TBD Adapt Royal Forest Society standards	Confor / CW
4.2	Level 3 forest operative	Expansion in delivery of newly available upgrade from level 2	3	s	apprenticeship	None	FC led consortia
4.3	Level 6 Professional forester	Newly accredited programme	6	s	apprenticeship	None	UoC/ ICF / FC
4.4	Agroforestry. Pastoral forestry. Silvopasture Farm woodland. Farm trees & hedgerows Wood pasture Orchards	Financial benefits for business, Principles, planting and management of tree stock, management of grass/ undercrop, use of trees in landscape, shade, soil retention, timber markets, microclimate, disease control, cropping timber/ browsing management, biodiversity, and environmental systems, water resource management, soft skills, grants and regulations.	5-7	m	Short courses	TBD	FC/ CW/TFN

Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
4.5	Multifunctional forestry	Biodiversity, carbon capture, flood management, landscape re-establishment, leisure and recreation, education, health and wellbeing, community forests	5-7	m	CPD / short courses	TBD	CW Confor/ UoC
4.6	Awareness to other land managers	right tree right place & principles of woodland carbon code. Community forests and working with others. Deer.	5-7	s/m	Short course	TBD	CW
4.7	Disease management	Ash dieback, phytophthora, honey fungus etc..., felling licences and regulations, EIA, HIA, TPOs	4-7	s	Short courses	TBD	CW/ UoC
4.8	Woodland creation & design for non-foresters	Fencing, planting, maintenance, thinning, cropping, ride and waterway management. Grants & regulations – EIA, HIA, TPO etc.. 'Right tree right place'.	1	m	Short course	TBD	CW
4.9	Use and maintenance of large forest equipment	Allied to Agricultural engineering specialising in forest equipment or foresters: harvesters, extraction and forwarding kit. Better utilisation of heavy plant & machinery: harvesters, skylines, forwarders	3-4	m	Short course  Apprentice	TBD	FC/NRLtd.
4.10	Encourage adoption of Forest Training Fund	Wide range of practical skill certification – over subscribed for 2023/4, but available in the future	2-4	s	Short courses	TBD	FC
4.11	Better management of current resource	Better maintenance of veteran trees, coppice woodlands, farm woods, hedgerows, orchards, ancient woodlands, PAWs, wood pasture, EIA, HIA. Regulations. Deer.	2-3	m	Short Course	TBD	CW & SMA, BHMMT

5.0 Addressing 'Natural Capital' agenda, the Lawton Review and nature recovery.							
Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
5.1	Engaging with government support programmes	Updating policy, regulation and support programmes Eg ELMS, FiPL, SFI, Office for Environmental Protection, catchment sensitive farming	5	S	series of short courses	TBD	Defra family
5.2	Promoting 'Natural Capital' / nature recovery	Advocacy, Negotiation, media and partnership working	5-7	s/m	Short courses	TBD	Consortia of nature base organisations / CLNP
5.3	Green financing	Carbon offsetting, carbon warehousing, biodiversity offsetting, the Petteril Valley project, woodland code, carbon credits, biodiversity net gain. Jargon busting	5-7	M	Short course	TBD	Consortia: LDNPP, NT
5.4	Farming with nature	Govt support Schemes, regenerative approaches, sources of advice, taking land out of production, habitat and species identification and management, transition farming	4-7	s/m	Short course	TBD	LEAF, TFN, RfN, CWT, CLNP
5.5	Managing peatland sites	Understanding and carrying out operational management, site monitoring and project promotion	4-7	S	Short course	none	SRUC, Annex N Or <a href="#">LANTRA Award</a>

Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
5.6	Power driven machinery in nature conservation sites & contexts	Tractors, PTOs, forage harvesting, bailing, Seed collector, diggers, telehandler, harvesters, forwarding equipment	3-4	S	Series of short courses	none	JJTA Lowe training / SRUC / Myerscough
5.7	Partnership working	MoU/ ToRs, negotiating & compromise, empathic & practical understanding, co-design, public engagement, leadership.	5-7	s/m	Short course	TBD	FLD, CWT, CLNP/ LDNPP
5.8	Coastal and seascape management	Estuary, beach, dune, cliff, rocky shoreline, salt marsh management. Engaging and managing Fishery interest. Marine Nature reserves/ marine conservation zones, species management and monitoring	5-7	S/m	Short course	TBD	CWT/ MBP/ LDNPA/ UoC
5.9	River, water supply and flood management	Managing and reprofiling watercourses, nutrient management and buffer zones / natural and artificial flood management, measurement and monitoring. Catchments, lag effects, erosion & sedimentation, land use changes, slow the flow & leaky dams. River reprofiling, effects on businesses.	5-7	s/m	Long programme of short courses	TBD	Rivers Trusts / EA/ UU/FBA
5.10	Raising accreditation levels	Raising the Award levels from 2 and 4, to 3 and 5, introduce award at level 1 (similar to Forestry)	1,3 & 5	m/l	Long programmes	Regrade to reflect reality and attract funding	Consortia of countryside organisations

\*Practical **peatland restoration** certificate recognised by IUCN UK peatland programme, NRW, Welsh Peatland Action Group, Yorkshire Wildlife Trust, accredited by LANTRA OR SRUC Peatland Restoration Programme (see Annex M).



6.0 Addressing sub-sectoral provision gaps							
Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
6.1	Sustainability	professional entry level (degree) and CPD programmes depending on need. To cover: principles, science, climate, biodiversity, audit, energy, low carbon, GIS, communities & engagement, policy, campaigning, transport, 5 capitals approach; mitigation and amelioration	5-7	m/l	long programme and series of short courses	TBD	UoC / CAfS  (see <a href="#">UHI programmes</a> )
6.2	On-farm-non-farm diversification enterprise	Exploring Planning, financing, developing, implementing a running non-farm diversification projects. Market analysis, 4Ps, SWOT, PESTLE, options and business planning	4-5	m	Short courses	TBD	Cumbria Chamber of Commerce/TFN, NFU
6.3	Advanced (electronics, IT & robotics) agricultural engineering	Mechanical, electrical and electronic engineering. Argi-tech that is both cutting edge, but best available technology. Sustainable systematic by design solutions and problem solving & resource utilisation efficiency. Disruptive technology. Alternative high energy density solutions (e.g.Hydrogen). Telematics	4-5	s/m	New Apprenticeship	Content driven by manufacturers	NRLtd & Inst. For Agricultural Engineers
6.4	Data gathering, handling and interpretation	Technological support to gather, manipulate and interpret data. Data driven decision processes, in real time, short, medium and long term planning. Agronomics advice, land management advice and support.	4-5	s/m	Short courses	TBD	SRUC
6.5	Environmental chemistry / analysis	Understanding, measuring and interpreting soil, water and air quality; reducing inputs and thus costs.	4-5	s/m	Short courses	TBD	UoC

Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
6.6	Climate change adaptation	Principles and practices for garden design and turf / sports management	4-5	s/m	Short course	TDB	NRLtd
6.7	Game	Increase promotion of apprenticeship opportunity	2-5	m	apprentice	none	NRLtd
6.8	Equine	Increase promotion of apprenticeship opportunity reintroducing programmes, based on riding schools and legacy Newton Rigg facility	2-5	m	Apprentice or T level	none	NRLtd
6.9	Outdoor recreation	Establish better continuation continuity and CPD routes	4	s	liaison	none	KC & UoC
6.10	Extraction industry	In house provision is unaccredited (this is not reported as an issue)	3	m	n/a	none	internal
6.11	Heritage industry	Site management, visitor management, interpretation, collection management, adapting to climate change, archaeology	3-5	m	Short courses	TBD	HE See <a href="#">HE climate webinars</a>
6.12	Water supply industry	Balancing nature conservation, agricultural production with the delivery of clean, reliable potable water and the reduction of flooding and pollution. River reprofiling and flood management. Planning for drought.	3-5	m	Short courses	TBD	UU / EA / Rivers Trusts

7.0 Enhancing the experience SEND EHCP students							
Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
7.1	Land-Based level '0' A programme with hand tools only. <i>No power-driven equipment</i>	Health and safety Environmental awareness Observing nature Tree planting and aftercare Boundary repair and maintenance Scrub management and control Grassland management Path management Wildflower sowing, plug planting, cutting harvesting and propagation. Wetland and peatland maintenance work	0	s	long programme at any location with significant supported work-based assessment	TBD	All providers & enablers to work as consortium, Ernest Cook Trust
7.2	GCSE Natural History	As per course programme – in development by DfE.	0	m	Long programme	In development (first cohort 2025)	Any registered centre

8.0 Co-ordinating Careers Advice, information & guidance							
Reference	Subject / topic area	Indicative content / Description	Level (0-7)	Short medium long term	Delivery length / Method	Development Requirements	Suggested Delivery Agent
8.1	Single reliable or co-ordinated source of career and training advice	<a href="https://ffcc.co.uk/cumbria">https://ffcc.co.uk/cumbria</a>	All	s	Online	TBD	FFCC / career Hub / CCC and successor councils
8.2	Bootcamp style intensive reskilling / upskilling programmes for land-based operatives	Lands base skill as per level '0' as introduction basic animal husbandry tasks tractor driving Machinery use Cross cutting chainsaw operation	2/3	m	In person. 16-week intensive programme	TBD	Consortia of land based groups
8.3	Bootcamp style upskilling at supervisory, first tier management level	As per generic skills for land managers - above	5	m	In person or online 16-week intensive programme adapt LANTRA level 5 programme	TBD based upon LANTRA Level 5 (see Annex M)	Consortia of land-based groups
8.4	Employing the Cumbria Curriculum <sup>5</sup>	Use of 'place base' and 'Nature' as a focus for cross curricular learning	0	m	School based	Draft	CCC / CuCC / W&FCC

<sup>5</sup> Goad, L., Prince, H. & Holman, C. (2022). *Cumbria Curriculum: Place-based learning in Cumbria*. Report for Cumbria County Council. Cumbria: CDEC, University of Cumbria, CAFS.

## 5.5 Delivery framework recommendations

Whilst content is critical to ensure we address the appropriate training needs of Cumbria, the SWOT analysis has revealed three critical delivery challenges which we believe need addressing in order to provide effective land-based training for the county. We recommend drawing on the experiences of SRUC and how the teaching and training of land-based skills is organised in Scotland. This is accomplished in an integrated way, with their entire land-based vision, policy and practice.

### CASE STUDY: Scottish Rural College (SRUC)

Working with the Scottish Government, SRUC have developed an overall vision to tackle global challenges facing rural life & economy based on **three domains**: Planetary Health; Science, Society & business, and Circular Economy.



Using these domains, SRUC work within **four** areas for the **future of Scotland** (& the world) in relation to biodiversity, safe water, climate and food security. Consequently, all programmes are linked to and have a combination of these 3 domains and 4 areas at their core. SRUC deliver and support at / through School, college, in under and post graduate programmes and increasingly at CPD, developing the current workforce to meet the challenges of the future.

To do this they use their college network, feeding through progression to their post-graduate and research, alongside their project work and consultancy. This is applied across Scotland, using local networks, hubs, distance learning, and blended / online delivery. It is done in appropriate partnerships with other agencies, various levels of Government and with the private sector. It engages in England, especially but not exclusively in the borders region; recruiting from events and show, having consultancy offices, including Kendal (J38) and engaging in UK wide and local government as appropriate.

There is a link between training new entrants, developing the 'in work' work force and accrediting competence. SRUC offer programmes linked to accredited as well as non - accredited status for land agents (RICS) and vets (RCVS) but as yet have not adopted TIAH / CMA accreditation into their programmes. The 'life long learning' approach they have adopted tackles both new entrants and those already in the work force, they have a 'non-linear journey' policy, which recognises that learners need to spend time in work and in learning, those can be done in parallel and importantly learners can need to 'go back' levels to pick up on new development and new opportunities.

This integrated and systems approach to developing learning within a subsector is best illustrated by the 'Digital Dairy Chain' project hosted at Barony, running through Scotland and Northern England funded by 'strengthening places'. It takes a holistic view of the industry and how it will need to be in the future. It recognises that training, research, development advice and consultancy need to be working in parallel and focussed on the industry and consumer need all the way through the food chain. Specifically, the subject areas of agri-tech and dairy science must be driving development but also the balancing need of biodiversity, climate action additionally to that of food security. There is plenty of future scope in applying the approaches and principles of digital dairy chain to the meat industry, controlled environment farming and multifunctional land management.

## Governance

Without a land-based college, or sufficient time lapsing since its demise for natural market correction, there is still a great deal of uncertainty and a lack of direction and leadership arising in its stead. Rurality and land base was also supported, championed, and advocated by CREA and by LEADER in the recent past. The change to two unitary authorities also muddies these waters, with lots of positive ambition, yet uncertainty due to change.

In any period of change there needs to be high levels of effective communication, clear decision making and positive leadership. Tensions that are already inherent risk derailing a unified solution, for example agricultural production and nature conservation. Governance clarity of who is going to be doing what, where, when and why is essential. That governance structure needs assembling, resourcing and being made central to delivery.

Specific governance issues:

### ***G1 – Co-ordinate land-based provision in Cumbria under one body/banner***

#### G1.1 facilitate co-operation of delivery.

*Rationale.* Current programming just about covers the immediate need for the sector as it has been. There are a few gaps, detailed in Table 6 . There is some competitive tension over 16-19 delivery of Agriculture in the Wigton / Penrith area and between full time programme and apprenticeship routes of learning in the subject, potentially causing the potential cohort to be split into uneconomically small groups.

*Immediate future delivery.* Without co-ordination, the free-market approach may cause too many programmes in the same/ similar topic areas to be brought forward. Similarly, without coordinated backing, certain programmes (eg LANTRA level 5 programme, Annexe M) may not give a single provider the confidence to launch such programme in a high risk environment. Finally, when a lot of change is already occurring (T levels, Blended delivery), there is the incentive to drive further change in content.

*Long term delivery.* Without a clear plan and vision, it is even more problematic for providers to commit the necessary resources to the development of a new programme or even put resources into the delivery in Cumbria of programmes developed elsewhere.

#### G1.2 Broker course rationalisation amongst providers

*Rationale.* When one centre is responsible for all delivery in a sector (a great example is SRUC for the whole of Scotland), then development automatically gains clarity and direction and there is a clear place to where questions such as rationalisation can be addresses. There were not enough student numbers to make a sufficient case for the retention of Newton Rigg, so the chance to effectively rationalise when several institutions are involved is naturally lower. The coming of 'T' levels in this sector has also received critical attentions, with providers and employers suggesting current programmes will need retaining – a further diluting of resource and students between too many programmes?

#### G1.3 Provide clear leadership and vision

*Rationale:* no single institution exists any more for land-based industry or training in Cumbria, previous incumbents could provide leadership and direction (eg. principal of Newton Rigg or the Chief executive of CREA). There is need for clear and unequivocal leadership to control of development in the rural sector. For example, rural and training is now spread across two panels of the LEP which leads to the potential of replicated work streams.

## **G2 – Implement a ‘one stop shop’ of land-based skills training and careers advice**

*Rationale:* Current advice and guidance can be a ‘hit and miss’ affair for the land-based sectors spread over many organisations, websites and other forms of communication. Clear, concise, up-to-date information about available training will help inform better business decisions and address the multiple drivers as noted above. An independent broker is indicated as the solution between the conflicting priorities of the land-based sector.

### G2.1 Create and launch ‘One Stop Shop’

Entrants, reskillers and upskillers will be able to find up to date course and programme information in one location. Providers will be able to promote their ‘best’ practice.

### G2.2 Connect ‘One Stop Shop’ to other Cumbria hubs in an appropriate way

A One Stop Shop will be able to connect directly into the Cumbria Careers Hub, Apprenticeship Hub and other training services to help to identify the best options for each client.

To be effective, everyone needs to be properly invested in the One Stop Shop. There will need to be provider buy in to supply information. Careers advisors will need comprehensive and unbiased information.

Funding will be an issue, we recommend some form of levy system for providers to be present on the One Stop Shop, drawing on the experience of the Cumbria Observatory or the Cumbria Biodiversity Data Centre.

## **G3 – Increase the recognition of the importance of land-based training in Cumbria to students of all ages**

*Rationale.* There is a rapidly developing need to ensure land managers and their staff have an awareness of the new agendas (such as climate action, biodiversity loss, food security etc.), the degree of change required, the underpinning knowledge and skills base which will be needed soon.

### G3.1 Design & run promotional campaign for the land-based sector

Appropriate delivery of information must be made available to as wide an audience as possible across the county. Young people, new entrants, upskillers and reskillers need to be made aware of the training offer and its importance.

Opportunities should be made available through substantive training, CPD (short and boot camps style) and life-long learning systems.

Given the disparate geographical nature of the sector peripatetic information displays could be developed using the Local Links network, libraries, village halls, auction marts, careers fairs and other points of gathering to advertise opportunities as well as online.

## **G4 – Explicitly link land-based training skills programme to county agendas, policies and action plans**

*Rationale.* There must be a clearer, explicit linkages between the value of land-based skills training and the wider county agendas to demonstrate that prospective and current land managers are valued and key to addressing these challenges and that their role is valued.

### **Resources**

*Rationale.* Effective long-term land-based skills training for Cumbria requires capital investment revenue support and the appropriate levels of staffing and infrastructure. Challenges relate to various supporting infrastructures to improve access to training, ensuring appropriately targeted funding develops and that the county has enough well qualified trainers and advisers.

The geography of Cumbria presents considerable barriers to learning given our distributed settlement and employment patterns. This is exacerbated for the land-based sector as most employment opportunities are in rural areas requiring only one or possibly two operatives in any one location. Some parts of the county find land-based training provision inaccessible. Public transport systems and IT connectivity can be poor or non-existent. Social and economic deprivation (of which Cumbria has some of the highest for rural areas in the country) can substantially decrease access to replacement private transport and IT.

Exacerbating the challenge, providers of land-based training of DfE unrecognised accredited programmes (previously Section 96) lack funding particularly for new agenda training provision where there lacks a ‘tested and recognised’ job market eg land-based micro renewables electricity generation. Furthermore, non-specialist institutions receive lower outcome related funding and cannot access the same capital investment programme.

### **R1 – Improve access to land-based training skills for all**

Improved access will come through the tripartite development of better access to holistic advice, better transport infrastructure and affordable accommodation.

#### R1.1 develop a one stop shop land-based training skills advice

This will need upfront pump priming of a range of resources to establish it. The quality needs to be developed to a standard for which users should be happy to pay.

#### R1.2 Create a transport infrastructure to support learner access to provision

Provision of better, more comprehensive and demand-led public transport timetables, routes and travel subsidies to fit with centres of training. The need to develop reduced travel to work/education times to avoid trainer and learner exhaustion/burn out.

Other options include bringing the learning to the learner as well as the traditional opposite. Thus, there is a need to plan delivery points around the county (eg Wigton auction Mart, J36, Lane Farm, Low Beckside). This is especially important as provision in the west of Cumbria and for those with various special needs is most affected by this barrier. There even may be a case for alternating hours of delivery to encourage better engagement with provision.

#### R1.3 Create affordable accommodation for land-based learners near to point of consumption



Support for good study space at home, IT connectivity and ambition / perceived opportunity management.

Addressing the problem with an alternative solutions such as bringing the learner closer to the point of training with the appropriate support is key especially for those with ECHP or SEND criteria. Using accommodation 'out of education' season, but 'in-tourism' season facilities more effectively.

## ***R2 Increase funding for land-based training to accredited and non-accredited providers***

### R2.1 Develop a one stop shop land-based skills 'funding finder'

As well as finding the right programme of study, it is important that the student/ trainee can see through the programme, especially in the current cost of living crisis. There is a wide range of small local and national funds that can support learners, whether by access, or fee subsidy or living cost, but identifying them can be complex and time consuming. A centralised *funding finder* system would go part way to address these needs.

### R2.2 Identify training funds for innovative training needs

Without a dedicated centre responsible for focussing on this issue, there needs to be a ring-fenced pot for extant and new providers to apply to for development costs (eg online resources, lifelong CPD system, peripatetic county wide delivery, training linked to chartered status or similar competence based awards).

### R2.3 Develop employer-led private funding to support specific training needs

There was no reported levy support for any of the sectors studied in this report. Individual businesses are paying for apprenticeships on a case-by-case basis. Bodies had existed in the past, but there is always an issue in this industry with many employers classified as microbusiness, who do not qualify to pay levies. The pot can be dominated by a very few interests.

A more equitable way of distributing training funds from the large to the small should be explored.

### R2.4 Lobby DfE to increase accreditation opportunities to draw down funding

Cumbria LSIF to lobby the DfE to expand originally what was 'Section 96' to include identified new training programmes or to allocate a discretionary localised funding pot for a central non-partisan panel to award. This would include capital investment, developmental funding and revenue streams on newly accredited programmes. This is most urgently, but not exclusively, needed for any sustainability programme development and associated infrastructure or resource.

## ***R3 Attract and recruit appropriate staff and more deliverers to service provision needs***

Specific weaknesses have been identified with regards to appropriate training expertise in county as well as that for advisers able to support desired change in the land-based sector.

### R3.1 Attract expertise to address provision gaps

The new employment opportunities identified in this report require different knowledge and skill sets from current land-based trainers. Cumbria will need to develop a strategy to attract and develop new staff.

### R3.2 Develop utilisation of expertise from out of county

An alternative or supplement to R3.1, whereby Cumbria draws upon expertise from surrounding providers (or even national bodies) as and when required.

### R3.3 Unitary Authorities to create affordable housing policy for provision staff.

House prices vs. salary vs. delivery location needs require an affordable housing policy that is focussed.

### R3.4 Upskill land management advisers to reflect the new agendas land-based managers are now required to address

The need for more rounded land management advisers to provide integrated advice to cover the range of new agendas Eg climate, biodiversity, productivity, increasing tree cover etc...

## **Delivery**

Rationale: The geography of our county combined with relative low numbers of trainees (new entrants, upskillers and reskillers) requires innovative thinking with regards to how we deliver such a diverse portfolio of syllabi. Combining different tailored solutions for geography, delivery mode and areas of weak provision for core and allied land-based will assist.

Historically, there have been gaps in delivery in each and every sector at particular levels which need addressing.

### ***D1 Address geographical delivery barriers***

*Rationale.* Geographical 'not spots' (no availability) exist for delivery provision in particular areas of the county, this needs addressing, to ensure equal opportunity, particularly for young people who are unable to drive. For example, it is easier for someone from Maryport to get to Carlisle than the Lakes College via public transport. Examples exist where this has been addressed by Lancaster & Morecambe College (Barrow- Sedbergh corridor) and by Eden District Council from Alston to New College, Co. Durham.

#### D1.1 Address north-west and north east Cumbrian provision 'not spots'

Areas of particular concern are the north-west, around Aspatria, and between Alston and Bewcastle for land-based.

#### D1.2 Improve transport network to accommodate 'not spots'

Areas of particular concern are the north-west, around Aspatria, and between Alston and Bewcastle for land-based.

## ***D2 Apply appropriate modes of delivery***

### D2.1 Develop Life Long learning framework for the land-based industries

The creation of life long learning framework will provide flexible bespoke training for all clients in the land-based sector, irrespective of experience, seniority or training need. Many trainees and learners now follow a non-linear journey in the education, starting, stopping, re-engaging and changing their trajectory. It will provide opportunity for progression and promotion supporting the development of a higher wage economy.

### D2.2 Select appropriate delivery modes for different client groups

All previous reports and employer observation from this work identify the need to employ flexible delivery modes to engage as many clients as possible. Each area of content described in the Content tables above will require careful consideration based on client needs, availability and purse.

Options available include:

- Course length: (2 hour, half day, 1-2 days, sixteen weeks bootcamp style, substantive, even over multiple years).
- Course mechanism: (peer2peer, online, blended, Face2Face, farm walk, class-based, correspondence courses, coaching, field based.)
- Accreditation options: DfE approved funded programmes, Chartered status, certification/ credit accumulation via lifelong learning loans, portfolios, direct observation assessment, competency driven, NPTC etc..
- Levels: 0 to 8 require different combinations of mechanisms above
- Timing: evenings, weekends, winter only, whole or half day, fitting round agricultural practices eg milking, lambing, harvests. Accreditation of prior learning and other student evidence led approaches.

## ***D3 Increase land-based provision where plausible around the county***

### D3.1 Increase provision for Level 3 and above supervisors, managers and professionals

Areas of focus include: soft skills; supervisory and managerial skills; business skills; communications, chartered status

### D3.2 Create in-county Level 0 and 1 provision(primarily) for SEND/ECHP students

Accredited programme development would benefit learners and progression. Previous level of offer at Newton Rigg needs re-establishing to at least the same level, bearing in mind the need to keep travel times to a minimum. To consider developing focused short term accommodation facility for short or several week training courses.

### D3.3 Develop an equivalent programme to Forest Futures Training for LSIP

Create a sister programme to the FFT for other land-based and allied sectors training programmes. A second option would be to blend such an offer with a lifelong learning framework driven by a 'life-long learning loan', where credit accumulation could occur.

#### ***D4 Fill gaps to address provision weaknesses***

Although strenuous attempts have been made to replace provision of Newton Rigg, clearly there are gaps at levels other than 2 or 3 and apprenticeships. There are also reported gaps in content, especially more recently developed processes, procedures and skills. There remains continuing gaps at L4 and above in many of the subsectors.

These gaps are expanded upon in the **Content** tables.

#### ***D5 Employ 'Lifelong Learning Entitlement'***

In 2025 the Government plans to launch its Lifelong Loan Entitlement which reforms part of its post-18 education and training strategy. From that date people between the ages of 18 and 60 will be able to draw on a loan of up to £37,000 to be used flexibly throughout their working life to pay for short courses, modules or full courses studied full or part time towards a fully accredited course. Modules will need to be at least at Level 4 or Level 5 in 2025 with Level 6 available from 2027. People who have previously studied will also be able to access the loan system up to the maximum value. Unfortunately, Level 3 will not be part of the offer nor the opportunity to learn at a distance. Consequently, it will only cater for a certain percentage of the land-based working population.

##### D5.1 Design modules and other training packages available for this financial support

Providers will need to develop a more flexible modular degree system to accommodate changing training needs over long time periods; for example, a set of core modules with a suite of changing options.

##### D5.2 Provide information and promotion of the LLE

Product information, how to apply for a loan and where to 'cash in' the loan will need effective dissemination not just online.

#### ***D6 Encourage and support employees to achieve Chartered Status***

Professional industry bodies commonly set standards at various levels for their members to follow. Portfolios of evidenced training and in-work competence can enable practitioners to attain 'chartered' status within those industries (usually for a fee). Those standards are part of the pay and progression system in many cases. Being a member allows access to further training, networking and mentoring opportunities to help career progression.

## 6 Conclusions & Overarching Recommendations

Whilst there is no one single transformational action that will address the training needs of the Cumbrian land-based and allied sector over the foreseeable future, a package of incremental solutions exist. In order that we prepare our current and future land managers for the challenges ahead we recommend here that they are appropriately equipped in the following content areas :

### Filling the content gaps in provision

<b>C1</b>	Developing generic skills for land-based industries raising standards at all levels
<b>C2</b>	Tackling climate change, including brand new delivery across all levels
<b>C3</b>	Improving productivity & efficiency in Farming
<b>C4</b>	Supporting the delivery of the England Tree Action Plan
<b>C5</b>	Addressing Natural Capital & the Lawton Review & nature recovery
<b>C6</b>	Addressing sub-sector training needs gaps
<b>C7</b>	Enhancing the experience of SEND/ECHP students
<b>C8</b>	Co-ordinating careers advice, information and guidance

To achieve this, we recommend that effective governance structures, focused resources and appropriate delivery mechanisms (Figure 5) are put into place as follows:

### Governance

#### *How the delivery is organised*

<b>G1</b>	Co-ordinate land-based provision in Cumbria under one body / banner
<b>G2</b>	Implement a 'one stop shop' of land-based skills training and career advice
<b>G3</b>	Increase the recognition of the importance of land-based training in Cumbria to students of all ages
<b>G4</b>	Explicitly link land-based training skills programme to county agendas, policies and action plans

### Resources

#### *Who does what, where and how is it paid for*

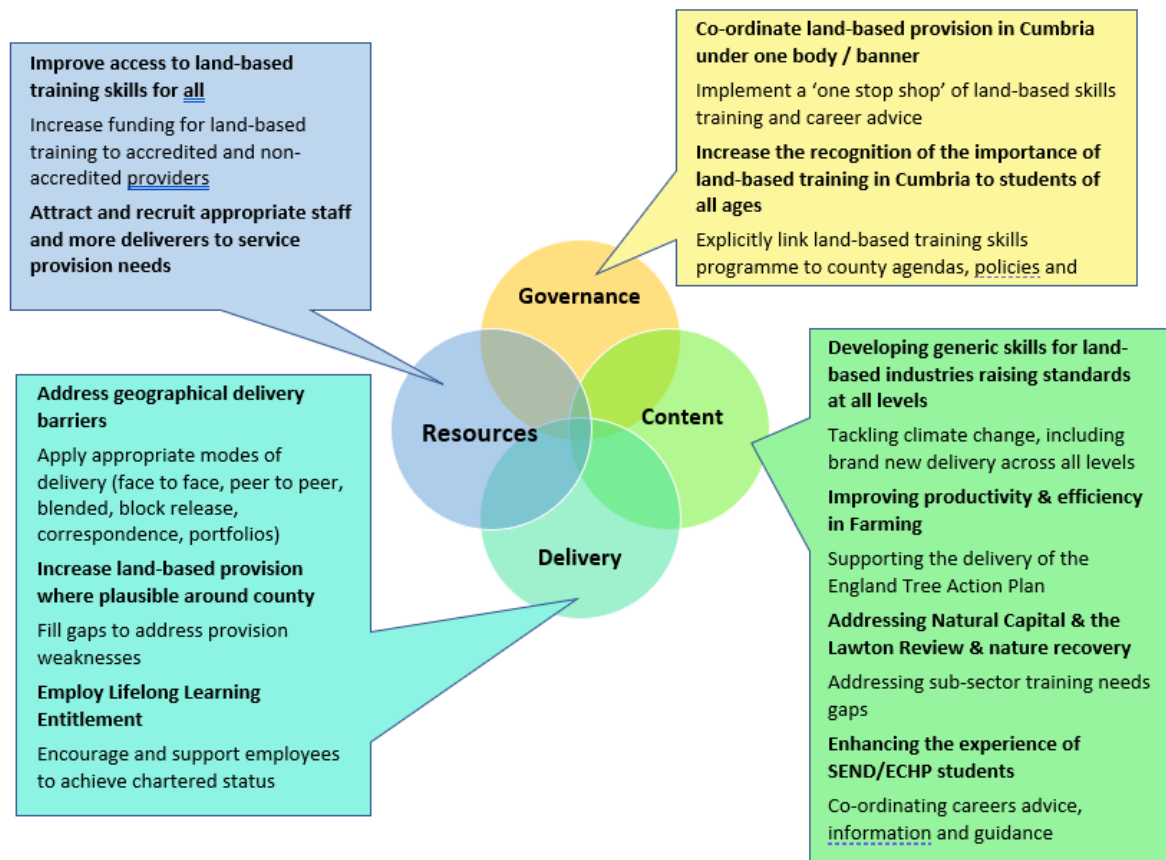
<b>R1</b>	Improve access to land-based training skills for all
<b>R2</b>	Increase funding for land-based training to accredited and non-accredited providers
<b>R3</b>	Attract and recruit appropriate staff and more deliverers to service provision needs

### Delivery

#### *How are the needs of the learner matched to the providers*

<b>D1</b>	Address geographical delivery barriers
<b>D2</b>	Apply appropriate modes of delivery (face to face, peer to peer, blended, block release, correspondence, portfolios)
<b>D3</b>	Increase land-based provision where plausible around county
<b>D4</b>	Fill gaps to address provision weaknesses
<b>D5</b>	Employ Lifelong Learning Entitlement
<b>D6</b>	Encourage and support employees to achieve chartered status

Figure 5 - Recommended Structure of Land-Based Skills Provision for Cumbria



Addressing food security, protecting and enhancing nature, and tackling climate change are the three main overriding challenges for the land-based sector. We must ensure the learning being provided at school, in college and as part of continuing professional development is of the necessary standards, relevance and quality for that future. **The most transformational single action** is likely to be in terms of governance; **to establish an independent consortia-style group with a respected head who can lead impartially, give vision and clear strategy to various stakeholders.** To support this a series of incremental solutions will need developing, in order that we prepare our current and future land managers for the challenges ahead (Figures 5 and Figure 6);

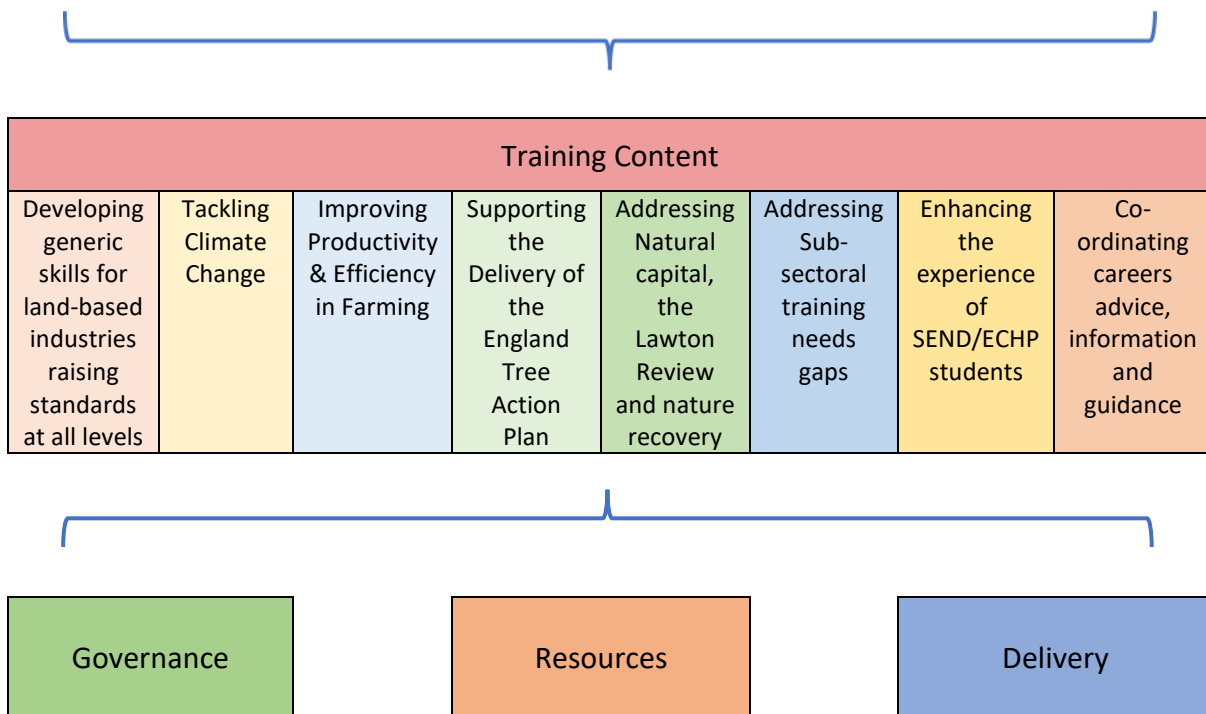
*Creating strategic and targeted training programmes that deliver food security, address biodiversity loss, and tackle climate change, whilst improving lives and livelihoods by facilitating an agile well-informed workforce.*

We recognise that this analysis has generated substantial work to be done to move Cumbrian land-based & allied sectors onto the front foot, working together. We would, therefore, welcome further dialogue with the Designated Employer Representative Body and the Chamber of Commerce to enable prioritisation of the 19 Recommendations.

Figure 6 – Proposed Cumbria Land-based LSIP Strategy

### Cumbria Land-based LSIP

*Creating strategic and targeted training programmes that deliver food security, address biodiversity loss, and tackle climate change, whilst improving lives and livelihoods by facilitating an agile well-informed workforce.*



## ANNEX A – Previous Reports Summaries

### ***The Cumbria Trailblazer Plan***

The [LSIP Trailblazer](#) was a comprehensive skills strategy produced under the auspices of the Cumbria Chamber of Commerce in 2022, with some depth in key areas. It made a strong case for farm and forestry training and began to explore some future need. The key findings were:

- Agricultural operatives require a much wider skills base than just farm enterprise skills, such as public goods production and management, business skills, livestock, and land management.
- For forestry, ‘there is a lack of craft-based training locally and a related lack of suitable applicants into the industry. Those that are trained do not have the necessary real-world experience, as there is too much reliance on the ‘ticket’ rather than the practice. This is linked to the lack of training, the syllabus and the assessment of competence that can be accessed in Cumbria (LSIP, 2020:20).
- A need for a cross-Cumbria Land and Nature Skills Service and a more joined up training approach across the land-based sector.
- Scope to develop a regional forestry innovation centre to support FE and technical training needs.
- A need for much more diverse and integrated skills base
- A need for greater diversity of delivery levels, styles and mechanisms
- A need to support new entrants, upskill and reskill people.
- A need to support innovation and entrepreneurship.

The Farming Sector Analysis (LSIP, 2022: 90) and Forestry Sector Analysis ((LSIP, 2022:56) are appended in Annexes B and C respectively of this report for ease of referral. With respect to the Forestry Sector, there were also a number of challenges and actions identified to take forward. In contrast to the farming sector, the forestry sector needs are less content driven and more structural in challenge.

The list of key skill needs identified from the LSIP Trailblazer (sic.,2022) analysis are summarised in Table 1 at the end of Part 1 in the main report.

The LSIP did not explore the nature conservation/ biodiversity management sub-sector training needs, this work was picked up and investigated by Cumbria Local Nature Partnership (CLNP, 2022).

### ***Cumbria Local Nature Partnership (2022)***

The focus of this report produced by the CLNP was to consider training needs for farmers with regard to the Cumbria Local Nature Recovery Strategy pilot. This would then support delivery of nature recovery through the forthcoming [ELM schemes](#) and wider environmental funding and investment. Sixty-two respondents completed a training needs survey came mainly from farming, forestry and wider land management community. The NFU facilitated two farmer discussion groups (47 individuals). The main needs identified are summarised on Table 2, and focus on public goods delivery, regenerative farming and other models of farm management, habitat creation & management and woodland skills. A second set of results was elicited from farm advisers which mirrored those identified by the farming community, but with slightly more emphasis on how to make the best opportunities from nature recovery and green investment (eg biodiversity and carbon offsetting).



Detailed training content identified:

- *Nature recovery* – overall awareness, ELMS all schemes (options and application process), SFI how to record condition. Species identification (harder groups) habitats (esp. species rich grassland, hedges, wood pasture, woodland, encouraging pollinators, habitats to store carbon, quant and qual (condition) surveys of species and habitats
- *Grassland mgt* – land suitability for restoration, grazing & Cutting management, seeding, leys and integrated pasture & grazing strategies
- *Hedgerow creation and management*, link to SFI hedgerow standard, species choice and design, carbon management, hedgerow birds, pollinators, laying & coppicing, aftercare
- *Wetlands and peatlands* - The creation/restoration of small wetland features – ponds, scrapes, seasonally wet areas
- *River restoration & natural flood management* – creation of habitats, *flood management techniques*
- *Soil management* – soil testing, soil organic carbon, soil infiltration, carbon storage, carbon farm calculator, leys, integrated pasture & grazing strategies
- *Woodlands* - creating new woods, managing woods for nature, maintenance, finance, plant health, design, species choice
- *Net Zero* - *jargon busting*, *carbon audits*, peatland restoration, habitats to store carbon
- *People management – soft skills*
- *Farm adviser needs (only orgns not private consultants)* – govt strategies, soil management plans, nutrient management plans, carbon baselining, UK forestry standard, woodland carbon code.

The CLNP report also considered modes of delivery, the main conclusions of which were:

- **Focus on:** on-site training, farm walks small group or 1:1 advice or facilitated sessions.
- **Avoid:** formal teaching settings

There as increased interest in the use of webinars, websites and training videos, and the report suggested this was a result of Covid.

### ***Land and Nature Skills Service Scoping Study 2022***

Based on an original recommendation of Mansfield (2019)<sup>6</sup>, the recently published [LANSS \(2022\)](#) scoping project and report focused on how:

‘To connect people with learning and training opportunities relevant to land- and nature-based work in Cumbria. The scope of the learning and training opportunities will be those for adults, and young people aged 16 years and over.’

The LANSS feasibility project (see this report Annex D for detail) included: a review of current providers in Cumbria (LANSS, 2022; Annex 2); a scoping study of demand with desk based and online surveys (LANSS, 2022; Annex 4); the development of a Service Blueprint proposal (LANSS, 2022; Annex 1) and a prototype website (LANSS, 2022; Annex 3). It highlighted, in the absence of a ‘agricultural college’ the fragmented nature of land-based delivery which has emerged since the

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<sup>6</sup> Mansfield (2019) ‘*Gap Analysis for Cumbrian Upland Farming Initiatives post-Brexit*’ on behalf of the Food, Farming and Countryside Commission of the RSA

demise of Newton Rigg. The LANNS work focused on the paucity of centralised information available in a user-friendly format for potential new entrants and businesses accessing quality affordable CPD and general land-based training. LANSS (2022) also identified that training suppliers operating in Cumbria (suppliers are Cumbria and non-Cumbria based) are often in competition with each other and naturally do relatively little to co-ordinate delivery, promote the sector or share expertise in developing new and emerging programmes for the sector.

LANSS conducted a skills demand survey as part of its feasibility study, the results of which are listed on Table 2. The main areas of requested demand revolved around public goods and nature recovery, farm skills, business skills, tree and woodlands, and rural & visitor economy. It is important to note the pattern of responders was fragmented across different land-based sectors; 133 people responded of which 22% were from farming, 30% from nature conservation, 11% from education and the rest from allied areas.

The LANSS work also considered delivery modes and found that short courses, workshops, site visits talks or experiences were preferred to other forms. Blended learning between online and face to face was also suggested.

### ***Cumbria Strategy for Post 16 Land Based Education, Skills & Knowledge Transfer (2020)***

As part of a wider report into FE & HE provision in Cumbria, commissioned by the University of Cumbria and Eden District Council, Banford (2020) conducted a farmer survey to understand their skill needs. One hundred and twenty-one responses were received covering a wider range of requests; these are identified on Table 2. Overall, key areas of demand were: public goods & ELMS, machinery tickets and use of new technologies, farm management skills, business planning and farm diversification.

This report explored the provision which would remain after the demise of Newton Rigg and began the process of identifying future needs of the sector as a whole and by subsector. It highlighted new emerging training needs for sustainability and climate change expertise. These areas are still to be fully explored for the wider land-based sector beyond internal staff development activities. A report from Cumbria Action for Sustainability (CaFs, [Chapman et al., 2021](#)) considered the potential for green jobs including green electricity generation, which will intersect with land-based industries in terms of water and land natural capital provision.

The CLNP report also identified preferred delivery modes finding that attending college full time was seen as the most appropriate way to learn, followed by on farm events and evening seminars. The least popular were learning out of county and online modes. It is important to recognise that this work was conducted before Covid, which has had a profound and pragmatic effect on IT use for training and learning purposes.

### ***Cumbria LEP Local Skills Report 2022***

The aim of this [report](#), produced by the Skills Advisory Panel, was to provide an update regarding information and intelligence about skills successes, needs and challenges of provision in the county, and as such takes a holistic strategic view of the situation. Consequently, land-based skills need was one of many challenges explored. Of the six challenges and needs identified, number five states (p8):

*‘Develop and enhance skills aligned to changes in the economy linked to development of clean energy, shifts in environmental land management and application of technology.’*

; and as such recognises the role the land-based sector can play in a reboot post Covid priority (p9):

*‘The UK’s Natural Capital – promoting and exploiting the benefits created by having the most protected landscape in England. Includes investment in natural capital improvements and land management schemes’*

Although direct reference to the skill needs of the land-based sector is scant, apart from recognising the loss of Newton Rigg and the need to rebuild the delivery base, there are five high level cross-cutting priorities of which are equally relevant to the land-based sector:

- Nurturing, Attracting and retaining talent
- Develop and retain higher skills in our economy
- Create the future (and current) workforce and skills to meet the needs of our economy
- Develop our future leaders and managers
- Address worklessness and Youth Unemployment

Additionally, the Local Skills Report identified the development of generic strategic support structures such as the [Cumbria Apprenticeship Hub](#) or [Cumbria Careers Hub](#).

***Labour and Skills in the horticulture an agriculture sectors in England, 2022*** (Nye *et al.*,2022)

This final report sought to address the lack of data to provide evidence required to understand the labour and skills requirements across England for agriculture and horticulture. Nearly seven hundred survey respondents represented 11% of the English agricultural workforce, the majority (74%) of which identified themselves as microbusinesses (0 to 9.5FTEs). The report acknowledged that there is an availability issue of labour and skills across the sector, which is affecting individual’s health & wellbeing. Many staff have no FE or HE qualifications and, whilst employers do provide some training, they often could not spare the time to release staff to attend elsewhere. There is a significant skills gaps existing now, and more targeted specialised training was needed in future. Many businesses (75%) had not had any management or leadership training in the last three years. Both retaining skilled staff and recruitment in general were a problem, and there was an overreliance on family members joining the business.

Nye *et al.* (2022) made a series of recommendations for industry representatives, policy makers and agri-business employers, and in relation to this report here key ones are:

- Creating accessible (free or subsidised) training modules about people management, communication and leadership skills.
- Create accessible (free or subsidised) training modules for employees which needs to reflect age, education, ability and literacy skill levels meaning delivery needs to be flexible
- Training must include: skills, future needs (eg IT, digital, data use and management), health & safety, environmental management solutions and regulations, machinery maintenance
- Greater collaboration between employers and educational collages & universities to match employee and employer needs more closely.
- Develop halfway house programmes to bring in those from a non-farming background
- Agri-businesses should include skills development in their business strategies

**‘Can’t see the skills for the trees’** (ICF, 2021)

The [Institute of Chartered Foresters](#) is membership organisation for professional foresters dedicated to the promotion and delivery of sustainable management of trees and woodlands in the UK. In 2021 they published a position statement regarding the increased demands for appropriately skilled forest and woodland workers in order to address Government targets to increase the UK woodland cover for it multifunctional values including climate action ([England’s Trees Action Plan](#)). The fundamental

message from the ICF is that currently the workforce is far too small to meet this demand in terms in expansion, upskilling and diversification. In fact, they suggest it needs to increase overall by 72%. Lack of awareness of ‘trees’ as career as well as poor accessibility, limited places, work placements and inadequate funding models in FE and HE are key challenges. Furthermore, the current workforce is not qualified or experienced enough to address the needs of modern sustainable forestry.

As well as increasing the quantity of forestry professionals, the report identified a range of additional training needs in relation to government policy requirements. The current workforce needs upskilling in terms of government policy, protection of the environment and the financial benefits of trees; particularly with respect to agricultural transition, where farmers need effective advice from forestry professionals. There is also a need to ensure third sector professionals, such as planners, understand the new forestry agendas as part of their role.

## Annex B – LSIP Farming Sector Analysis (LSIP, 2022 Section 5.8 – Annex H)

Context, policy change:

- Agricultural and Environmental policy change causing a step shift in focus from food production to public goods provision.
- Loss of direct payments/Basic Payment Scheme and transition to ELM in the new policy is a huge change for farm businesses which cannot be underestimated. This is not only from a financial loss or change perspective, but from a skills requirements perspective. To access the new ELM schemes, farmers will be required to map, measure and monitor their on-farm assets regarding public goods delivery whilst maintaining sustainable farm businesses.
- In Cumbria, many of the farms have relied on direct payments and Agri-environment schemes for their businesses as much of the land is marginal.

Context, farming in Cumbria:

- Farm businesses have varied employment models. In Cumbria, many farms are likely to rely on the family labour initially, and contract out specific elements of work, e.g., lambing assistants, fencing, walling, and so on.
- Common land features in Cumbria, with 28% of land being Common. This requires additional skills in collaboration and facilitation with multiple rights holders as well as the landowner.
- The value of farming from a heritage perspective is vital in Cumbria, providing a basis for the visitor economy alongside other land-based professions.

Context, lack skills, training and knowledge exchange delivery:

- Loss of Newton Rigg in 2021 means that there is no land-based specific college in Cumbria
- A few of the gaps for FE provision have been filled by Kendal College and Ullswater College in partnership with Myerscough.
- Out of county colleges are relied upon for delivery, causing a loss of retention for the workforce in county: Myerscough, Craven and Askham Bryan colleges are the providers delivering in Cumbria, but with very limited resource and lack of a base in Cumbria.
- NR Training is working to support Agricultural and Horticultural course delivery but are at very early stages and would require significant resource to push forward.
- Lifelong learning is not being provided in a joined-up way and there are many gaps in provision of CPD
- All reliant on short-term funding, limited resources and require a burden of risk for the smaller local organisations who are not sufficiently funded to deliver.

Skills needs of employers – farm businesses:

- Public goods and nature recovery: With the context of producing public goods and accessing public and private finance for business sustainability and resilience, there is a long list of skills required which include but are not limited to:
  - Mapping – baselining and monitoring, using mapping technologies for on-farm assets
  - Ecological surveying – methods to measure biodiversity, habitats
  - Soil surveying – methods to measure type of soil, soil quality
  - Natural Flood Management, habitat restoration, peatland restoration – knowledge of the methods, tickets for machinery use, practical skills and many other cross-cutting skills.
- Farming skills:
  - Animal health and welfare, livestock husbandry
  - Tickets for machinery
  - Grazing regimes – e.g., regenerative/mob grazing

- Regenerative/nature friendly agriculture practices – herbal leys for grazing, hay meadow restoration
- and management
- Precision farming - technology use
- Business skills:
  - Farm business planning – financial baselining and assessment of business options to make decisions. Accessing grants and schemes. Accountancy.
  - Marketing and customer services – supporting direct sales of food products to market
- Issues with retention and recruitment
  - Instances of farmers training people to work for them, but they do not stay in farming or with that farm business
  - Instances of Lack of people to fill roles in management

#### What needs to change and why

- Funding needs to be long-term and cover the true costs of delivery e.g., apprenticeship wrap around care to allow local organisations to deliver more and with the required support/resource.
- The breadth of skills needs in farming has significantly widened due to the focus in policy on public goods provision and nature recovery: this must be reflected in the amount and diversity of skills-based learning opportunities delivered.
- Delivery must include FE, HE, CPD, knowledge exchange opportunities
- Due to change in policy and the need for a thriving rural economy, its paramount that there is joining up cross-sector to address the skills gaps: farming, forestry, nature conservation, and beyond.
- Need to support people to access farming, bringing in new experience/skills from other sectors. This includes overcoming the urban/rural divide – need education about the realities of farming and the breadth of skills which people could bring into the sector (from marketing and accountancy to shepherding and ecological skills).
- Supporting innovation and entrepreneurship Roadmap for delivering change
- Consistent and appropriate funding for training, skills and knowledge delivery/provision for lifelong learning opportunities.
- Funding and resource to support a joined-up approach across the sector as Farming, Forestry, Nature Conservation and other land-based delivery needs to move away from a siloed approach. This links to the strategic priorities of Protected Landscapes and the delivery of public goods as is central in the 25 Year Environment Plan and Environmental Land Management schemes.
- Consider the development of a Land and Nature Skills Service for Cumbria, which is currently being scoped (completed in July 2022)
- Explore and develop what can be delivered at the University of Cumbria and the Cumbrian Colleges. Secure additional resource to enable this.
- Develop a comprehensive Apprenticeship programme alongside FE and HE provision
- Apprenticeships are accessible to wider audiences, supporting social mobility, are a vital way to gain practical skills
- Support delivery of the Countryside Worker Apprenticeship amongst other relevant apprenticeship standards. Bring back the Hill Farm apprenticeship which was delivered by the Farmer Network in Cumbria.
- Develop a network of training delivery sites e.g., Low Becks Hill Farm, NGO-owned properties.
- Identify the gaps in delivery sites and develop new sites.



- Delivering on multiple aspects of land-based skills needs
- Deliver the skills provisions required to bring and retain more people in the sector to support thriving farm businesses, landscapes and communities.

## Annex C – LSIP Forestry Sector (Section 5.9 – Annex I)

### Background

Woodlands in Cumbria extend to approximately 58,500ha.1, approximately 9% of the land surface of the county. 14,500ha is owned or managed by Forestry England, the remainder by a mix of rural estates, owner occupier farms and NGOs such as the National Trust. It is estimated by the Forestry Commission (2013) that 35,500ha. of woodland in the county are ‘managed’, and thus making an economic contribution, including creating employment in the forestry and timber sectors.

According to the ONS2, in 2020 there were 230 people employed in forestry in Cumbria, with a further 470 employed in timber processing. However, it is known from other research that ONS data presents only a partial assessment of the total workforce, due in part to a high proportion of self-employment which is not PAYE or VAT registered, and thus does not appear in BRES. The same research also indicated that the forestry workforce is relatively transient, both geographically and sectorally, and thus official statistics are subject to significant annual variations. Furthermore, a number of timber processors will be registered under other SIC codes, such as manufacturing. The Holmen Iggesund paperboard mill for example employs over 400 people but is largely reliant on timber from Cumbria and nearby.

Cumbria is part of a significant forest resource in the north of England, which together with the Scottish border counties represents the largest concentration of commercial forests and timber processing in the UK. The timber processing businesses in Cumbria, including BSW at Carlisle, A W Jenkinson at Penrith and Holmen Iggesund at Workington, represent a part of an industry cluster which is considered world class in terms of both scale and recent investment.

In general, although the UK imports approximately 80% of its timber requirements and is the world’s second largest importer of timber after China, the processing sectors for UK (or ‘home grown’) and imported timber are largely separate. The comments below relate to the home-grown sector.

### 1-2-1 discussions

The 1-2-1 discussions consisted of telephone or online interviews with a variety of employers within the forestry and timber sectors. They included a full range of companies and organisations from micro to large businesses, and private, public and third sector organisations. We have also drawn on wider research undertaken recently for the England and Wales Workforce Research Report (see above).

The forestry industry in Cumbria is typical of the sector in England in that it consists of a high number of micro businesses, with fewer ‘larger’ businesses (although still ‘small’ in an official sense i.e., employing less than 50 people) and public or third sector large employers. This has significant implications for the demand, provision and development of training and education as outlined below.

It is also the case that taken overall the forestry sector in Cumbria is not of sufficient scale to support an extensive training provision, and thus any solutions identified are likely to be needed to be delivered at a regional level, in co-operation with other areas.

### Micro-businesses (10 or fewer employees)

- Very high level of self-employment i.e., most ‘workers’ are self-employed even if they work full time for a company
- Low degree of mechanization, most tasks are manual, enabling a degree of new entrant supervision



- Predominantly short-term contracts, with a high degree of repeat clients (mainly private sector) negating investment in skills etc
- Working owners, with little time to consider development needs and participate in formal training programmes e.g., apprenticeships
- Low degree of engagement with training providers and/or educational establishments
- Limited aspiration for growth

**Small businesses (11-50 employees)**

- Few in number
- High level of self-employment although there is some evidence of a shift towards greater use of employed labour
- Highly mechanized, with limited scope for new entrant supervision without significant productivity reduction
- Greater use of long-term contracts with public sector or larger private sector companies, enabling greater investment
- Increasing degree of vertical integration with other sector companies (processors, management companies etc.), which has potential for more focused training provision
- Growth orientated

**Large businesses/organisations (250 + employees)**

- In forestry sector, mainly public sector or the forestry commission. Some timber processing companies.
- In-house training and development provision
- Greater degree of engagement with training providers and/or establishments
- Apprenticeship levy payers and open to providing apprenticeship positions

*Table A – Forestry Sector Skills Needs with 2023 update here  
(taken from the LSIP, 2022)*

Challenge	Solutions Proposed	Current situation
Lack of time and scope for microbusinesses to invest in training	Expand SDF skills hub Seek funding for WDF service	No substantive progress
Lack of apprenticeship provision	Seeking L2 Forest operative L6 Professional Forester	L2 now accredited as L3 Forest Craftsperson. L6 Professional Forester being delivered at UoC
Lack of FE provision of forestry courses	Seek regional critical mass with Northumberland and link to Borderlands Initiative	No substantive progress
Lack of suitable applicants	Promotion of forestry as a career	Lack of human resource to deliver universally Discussed with Confor
Lack of real world experience	Identify and encourage more work placements through larger employers  Seek Forest Machine Operator training programme/simulator access	On going  No substantive progress
Focus is on certificates and not development	Encourage users of contractors to favour contracts where	Ongoing

	contractors invest in development of their staff	
Quality of training not good enough More good trainers needed	Improve skill levels via award bodies Provide Train the trainers courses	Ongoing
Lack of training for some roles	Work with FISA to promote concept of specific roles	Ongoing
Assessment of competency FE courses provide training but not competency certification	Encourage FE providers to include competency assessment in programmes	Ongoing

## ANNEX D – LANSS (Land & Nature Skills Service) proposal

### Introduction

Funded by the Esme Fairburn Foundation and supported by a wide range of voluntary stakeholder input, the Food, Farming & Countryside Commission (FFCC) produced a comprehensive scoping study and related blueprint proposal during 2022 to support a skilled, inclusive workforce fit for the future of land- and nature-based work in Cumbria, meeting the needs of communities and our natural environment. The main proposed aim of LANSS (2022:3) would be to:

‘to connect people with learning and training opportunities relevant to land- and nature-based work in Cumbria. The scope of the learning and training opportunities will be those for adults, and young people aged 16 years and over.’

The functions of the Service would be:

- To connect people with learning and training opportunities relevant to land- and nature-based work Cumbria, for adults and young people aged 16+.
- To co-ordinate across the sector to enable the most effective array of learning and training opportunities to be offered.
- To promote land- and nature-based work in Cumbria, with realism and inclusivity.

Target audiences would be:

- Learners and their advisors.
- Providers of learning and training opportunities for the land and nature sector in and near Cumbria.
- Employers in the land and nature sector in and near Cumbria.

In this respect land and nature training covers the following themes:

- Farming and growing
- Nature Conservation
- Estates, building and machinery
- Environmental monitoring
- Business & financial
- Waters, rivers and catchments
- Forestry & Woodlands
- Visitor and rural Economy
- Protected Area management
- People, communication and education

The LANSS feasibility project included: A review of current providers in Cumbria (Annex 2); a scoping study of demand with desk based and online surveys (Annex 4); the development of a Service Blueprint proposal (Annex 1) and a prototype website (Annex 3).

### Supply - Current providers in Cumbria (Annex 2)

A desk review was conducted of current providers offering training and knowledge exchange provision for land- and nature-based work predominantly in upland landscapes and for over 16s. Skill provision was summarised and shown in the Table B below:

**Table B – LANSS Summary of Skills Provision in Cumbria**

Core Land & Nature Skill Categories	Example Skills
Farming and growing	Hill farming, sheepdog training, regenerative farming, vet, animal health and welfare, food production and marketing, advice, herbal leys, organic, soil, agroecology, whole farm planning
Nature conservation	Habitats, species, nature recovery, ecological restoration, advice, project management
Catchment Management	wetlands, peatlands, river re-wiggling, advice, water resource management, landscape architecture/design, soil
Forestry and woodlands	Trees and scrub, advice, design planning, woodland creation/tree planting, coppice
Estate management skills	Field boundaries - Fencing, Walling, Hedging -, tree surgery, tickets (chainsaw, ATV, tractors), shooting and gamekeeping
Baselining and monitoring skills	Soil, carbon (net zero), ecological surveying, water, mapping, biodiversity net gain, using ecological data to inform land management, archaeology, geology
Rural and visitor economy	Farm and wildlife tourism, Guiding, farm diversification, rangers, public engagement, environmental education, outdoor ed, traditional crafts, greenwood working, wool,
Land & Nature Business Skills	Business planning, grant applications (mentors to support holistically), marketing, communications, related digital skills

(Source: LANSS, Annex 2)

The range of providers identified in Cumbria was extensive, the key findings of which are:

- Levels – degrees, T levels apprenticeships, level 1/2/3 City & Guilds whilst still valid, short courses, CPD, Short courses, advice and taster sessions.
- Providers – a database of 34 in- county providers, 10 out of county providers, pre-16 providers
- Gaps in training offered -how to find information about L2 and L3 apprenticeships in Cumbria, and where they are offered, lack of CPD courses, lack of geographical spread.

Its recommendations were:

- Exploration/consider opportunities not readily available/promoted online or missed here and costs associated with current learning opportunities; employer skills demand; learning from past providers; monitoring new developments.
- Consultation on individuals’ perception of skill development opportunities in the sector in Cumbria, reasons for pursuing/not; inclusivity/accessibility (and knowledge of employment opportunities, training providers).
- Review the skills relevant to employment in the ‘land and nature’ sector, and update the table of skills above, with input from employers, working group, workforce.
- Consult sector representatives to seek additions and amendments to the database of current skill development opportunities for the sector in Cumbria.

### **Demand - Scoping study Highlights and Conclusions (Annex 4)**

The scoping study included a range of desk based and online surveys to understand the landscape of provider supplier and client demand for land and nature skills in Cumbria. With respect to representative client demand, 133 people responded of which 22% were from the farming sector, 30% from nature conservation, 11% from education and the rest from allied areas. A third were self-employed and a third were early on in their career, and the majority of respondents were above school leaving age (18). The overall response (76%) is that there are not enough learning/training

opportunities in the land-based sector in Cumbria. Most either feel the level of training is too basic or did not know where to access it.

The following themes were identified as needing training provision by individuals:

- regenerative agriculture/soil health/agroecology
- farm nature conservation
- ecological surveying and related skills
- woodland management, tree health etc and species identification

Other skill and knowledge areas identified included: animal husbandry, practical conservation skills, production horticulture, carbon and climate, agri-environment schemes, estates and countryside management.

Suggested **delivery mechanisms** included: short courses, one-off workshops, visits, talks or experiences, and mentoring, coaching or networking meetings, and there was also significant interest in online learning communities, long courses and apprenticeships. With regards to **delivery style** in person outdoor, 'on-the-job' or blended approaches were also requested by three quarters of people, with 55% asking for college to centre training and half, online-only.

The study also reflected the views of middle/senior level post holders in land-based and allied organisations in Cumbria. There were three main conclusions:

- Shortages of **specific skills**: arboriculture, drystone walling, ecological surveying, horticulture, practical land management, GIS (Geographical Information Systems), project management, riparian management and conservation skills
- Shortages of **access to advisory services and people skills** including: farm business consultancy, knowledge of agri-environment schemes, surveying, land agency, working with farmers, office administration, stakeholder liaison and mental health training.
- **Barriers to learning/training**: travel distance, availability, funding, time for staff development and timing of courses

### Prototype website (Annex 3)

A desk review was conducted to review of similar operational skills hubs accessible in Cumbria. Key findings were:

- There is currently a lack of hub websites to signpost and collate training opportunities for the land and nature sector in Cumbria – most operated by single providers.
- National skills development listings platforms generally do not effectively signpost relevant opportunities in the land and nature sector in Cumbria.
- International listing platforms tend to promote online courses which do include courses relevant to the land and nature sector.
- An analysis of the good and bad points of website design, functionality, scope and style to inform development of a LANSS hub website
- An analysis of governance status to inform the operation a hub website

– this can be viewed here: <https://www.figma.com/proto/rCOB7gT7H05jp9AHQBLtHx/FFCC-wires-vis?page-id=0%3A1&node-id=110%3A1007&viewport=2731%2C-6256%2C0.34&scaling=scale-down-width&starting-point-node-id=110%3A1007&show-proto-sidebar=1&hide-ui=1>

### Proposal - LANSS Blueprint Recommendation (Annex 1)

The LANSS Blueprint is a reference resource for implementation of the service and is intended to inform the implementation of a Land and Nature Skills Service for Cumbria from 2023 and to assist in attracting the necessary funding. Its purpose is:

‘To connect people with learning and training opportunities relevant to land- and nature-based work in Cumbria’.

This document sets out the recommendations:

**Scope** – adults, and young people aged 16 years for land and nature skills listed at the beginning of this Annex.

**Functions:**

- **Connect** people with learning and training opportunities relevant to land- and nature-based work Cumbria – catalogue, signpost and facilitate bespoke training.
- **Co-ordinate** across the sector to enable the most effective array of learning and training opportunities to be offered – facilitate, evaluate and communicate.
- **Promote** land- and nature-based work in Cumbria, with realism and inclusivity – showcase, share and promote

**User groups** - learners, providers and employers; to be inclusive and accessible, to link to pre-16 provision

**Service structure** – governance, hosting organisations, accountable body, steering group, core staff, practice community.

**Services** – website (see above), promote and communicate online and in person, research needs, gaps and opportunities, provide access to information about training and learning opportunities, be strategic.

The Blueprint includes an indicative schedule, budget forecast and funding options.

## ANNEX E –

### Targeted consultees

(Additional to those consulted under the ‘Trailblazer LSIP’)

Organisation	Interest	Representatives	Hyperlink
Confor	Industry / employer	Richard Hunter	<a href="#">Confor : Confederation of Forest Industries (UK)</a>
Cumbria Local Enterprise Partnership	Enabler	Rachel Włodarczak	<a href="#">Unleashing Potential Through Partnership – Networking, employment &amp; tourism in Cumbria   Cumbria LEP (CLEP) (thecumbrialep.co.uk)</a>
Cumbria County Council (Education)	Enabler	Dan Barton	<a href="#">Welcome to Cumbria County Council   Cumbria County Council</a>
Cumbria County Council (careers)	Enabler	Ellen Wealleans	<a href="#">Welcome to Cumbria County Council   Cumbria County Council</a>
Cumbria County Council (Observatory)	Enabler	Ginny Murphy	<a href="#">Welcome to Cumbria County Council   Cumbria County Council</a>
Cumbria Wildlife Trust	Industry / employer	Simon Whalley (+1)	<a href="#">Home   Cumbria Wildlife Trust</a>
Cumbria Woodlands	Industry / employer	Neville Elstone	<a href="#">Cumbria Woodlands</a>
FE4	Provider	Chris Nattress	<a href="#">Home - Lakes College (lcwc.ac.uk)</a>
H&H land	Industry / employer	Mark Johnson (+2)	<a href="#">H&amp;H Land &amp; Estates - H&amp;H Land &amp; Estates (hhlandstates.co.uk)</a>
Inspira	Provider	(+1)	<a href="#">Home (inspira.org.uk)</a>
Kendal College	Provider	Sinead Kay (+2)	<a href="#">Kendal College   Home</a>
LANTRA	Provider	Marcus Potter	<a href="#">Leading awarding body for land-based and environmental training - Lantra</a>
Myerscough	Provider	Alison Robinson	<a href="#">Myerscough College   Inspiring Excellence</a>
Natural England	Industry / employer	Katherine Martin (+1)	<a href="#">Natural England - Natural England (natural-england.org.uk)</a>
National Farmers Union	Industry / employer	David Hall	<a href="#">NFU North West – NFUonline</a>
NR Ltd	Provider	Andy Cobb (+3)	<a href="#">NR Training - Land-based skills in Cumbria</a>
Sussex LSIP ‘deep dive team’	Enabler	Nora Davies (+1)	<a href="https://www.sussexchamberofcommerce.co.uk/">https://www.sussexchamberofcommerce.co.uk/</a>
STEM dairy	Provider	Donna Walton Michael Christian	<a href="#">Home - SmartSTEMs</a>
The Farmer Network	Industry / employer	Adam Day	<a href="#">The Farmer Network   Providing Help and Support to Farmers</a>
The Institute of Agriculture and Horticulture	Provider	Janet Swale (+1)	<a href="#">TIAH - The Institute for Agriculture and Horticulture</a>
Ullswater College	Provider	Steve Gilby	<a href="#">Home - Ullswater Community College (ullswatercc.co.uk)</a>

<b>Forestry Commission</b>	Industry / provider	Steve Fowkes Jim O'Neill	<a href="https://www.gov.uk/guidance/forestry-training-fund">https://www.gov.uk/guidance/forestry-training-fund</a> <a href="https://www.gov.uk/government/organisations/forestry-commission">https://www.gov.uk/government/organisations/forestry-commission</a>
<b>LDNPA</b>	Employer	Steve Ratcliffe	<a href="http://www.lakedistrict.org.uk">www.lakedistrict.org.uk</a>
<b>CAFS</b>	Employee	Karen Mitchell	<a href="https://cafs.org.uk/">https://cafs.org.uk/</a>
<b>Cumbria Careers Hub</b>	enabler	Cath Dutton	<a href="https://www.careershubcumbria.co.uk/">https://www.careershubcumbria.co.uk/</a>
<b>The Rivers Trusts</b>	Employers	Debbie Rawlinson, Elizabeth Radford Caitlin Pearson	<a href="https://www.westcumbriarivertrust.org/">https://www.westcumbriarivertrust.org/</a> <a href="https://www.edenrivertrust.org.uk/">https://www.edenrivertrust.org.uk/</a> <a href="https://srtc.co.uk/">https://srtc.co.uk/</a>
<b>Royal Forestry Society</b>	Employer / industry	Becky Wilkinson	<a href="http://www.rfs.org.uk/">http://www.rfs.org.uk/</a>
<b>Eden District Council</b>	Enabler	Phillipa Ball	<a href="https://www.eden.gov.uk/">https://www.eden.gov.uk/</a>
<b>Ernest Cook Trust</b>	Provider/ Employer	Emily Crawley	<a href="https://ernestcooktrust.org.uk/">https://ernestcooktrust.org.uk/</a>
<b>SRUC</b>	Provider	Mary Thompson Nick Sparks James Banks	<a href="https://www.sruc.ac.uk/">https://www.sruc.ac.uk/</a>
<b>Institute of Agricultural Engineering</b>	Industry	Andrew Newbold	<a href="http://www.smart-farm.co.uk">www.smart-farm.co.uk</a>



## Annex F – Current Provision Evidence

Figure A summarises the provision by level inside and adjacent to Cumbria.

### Pre-16

Pre-16 is an important stage for the land-based and allied sectors as it provides young people with the opportunity to learn about the types of careers which could be available to them. It is particularly important as knowledge related to these industries forms a minor part of the National Curriculum.

With respect to Pre-16 most of the provision is focused on careers advice. Schools are responsible for careers advice and must meet the [8 Gatsby benchmarks](#) in their provision in line with DfE policy. To achieve this, the Cumbrian Careers Hub, based at the CLEP, provides and organises a range of support, directly and indirectly, through a range of providers, primarily [Inspira](#). A school uses its own budgets, combined with resources available to provide support and advice, and works in conjunction with local employers and employer representative organisations.

Careers advice in other industries is supported by ‘cornerstone employers’, this opportunity is very limited in land-based as the industry has mainly small to micro employers, many subsectors and many voices who do not always have the same objectives or messages.

In many industries there are lead trade bodies, levy boards or similar who will take the vanguard in facilitating career engagement. In the Cumbrian land-based industry, there is neither a single voice, significant size employers in production and conservation and these sectors are mainly seen as competing for land use. Without an **obvious ‘cornerstone’ employer**, with a social consciousness budget private sector funding is sparse and those seeking funding need it for opportunities just as important as training. An issue for land based is that there is no longer a single lead body. In the past LANTRA were funded to do this, the Agriculture and Horticulture Development Board have also played some role in public education and awareness of the sector, the NFU and CLA both produce some information. Confor and Cumbria Woodlands, along with the Forestry Authority does the same for forestry. Natural England, the National Parks, AONBs, the National Trust, RSPB, Woodland Trust and all the smaller local environmental charities such as the Cumbria Wildlife Trust also engage with young people educationally and promote their role at a low level. Each of the other subsectors has organisations and charities that perform similar functions. The Young Farmers movement is a county wide confederation of local groups all dedicated to promoting farm practice and rural ways of life and are open to all young people, scouts, guides and associated groups can also not be discounted.

It is a significant policy strand of the Cumbria County Council to develop a ‘**Cumbrian Curriculum**’ or Nature-based curriculum (Goad *et al.*, 2022)<sup>7</sup>. This is a principle, used consistently from preschool to ‘A’ level leavers, to encourage and facilitate the use of the local area and the land management specifically of Cumbria as a basis for practical and applied curricular learning. A nature site or farm would be used not just to illustrate the obvious, but also as inspiration in English, to demonstrate practical mathematical ideas, show the applications of science and so on. A report by the University of Cumbria, CDEC and CAFS is in publication that will act as a practical guide for all schools as to the

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<sup>7</sup> Goad, L., Prince, H. & Holman, C. (2022). *Cumbria Curriculum: Place-based learning in Cumbria*. Report for Cumbria County Council. Cumbria: CDEC, University of Cumbria, CAFS.

Figure A – Structure of Land-Based Training Provision by Sub-Sector in Cumbria

★ Offered in Cumbria    ★ Offered adjacent to Cumbria

	Substantive Programmes											
	Agriculture	Agricultural Engineering	Animal Care/Management	Conservation/ Countryside	Forestry	Arboriculture	Horticulture (gardens & landscape)	Golf & sports turf	Game	Outdoor	Equine	Fariery
White cells represent no national award available for this subject.												
Level 0			★									
Level 1	City & Guilds Award/Certificate/Diploma											
	★	★	★	★			★				★	
Level 2	City & Guilds Diploma											
	★	★	★	★		★	★	★	★		★	★
	Apprenticeships											
	★	★		★		★	★	★			★	
Level 3	City & Guilds Extended Diploma											
	★	★	★	★		★	★	★	★	★	★	
	Apprenticeships											
	★						★	★			★	★
	T level											
	★			★	★		★					
Level 4	HE Foundation Certificate											
	★				★		★	★	★		★	
	Apprenticeships											
						★						
Level 5	FdSc/FdA/Dip HE											
	★	★	★	★	★	★	★	★		★		★
	Apprenticeships											
							★					
Level 6	BSc/BA Hons											
	★	★	★	★	★	★	★	★		★		★
	Apprenticeships											
					★							
Level 7	MSc/MA											
						★	★	★		★	★	
	Apprenticeships											
Level 8	MPhil/PhD											
					★	★					★	

implementation of this approach (Prince *et al.*, 2022)<sup>8</sup>. It is intended that every pupil will have a full sense and appreciation of Cumbria and the Cumbrian rural economy by the time they complete their formal school education. A further South Lakeland initiative is the Eden North project around Morecambe Bay and various educational groups and charities are involved in providing a locally based, in the community curricular support programme (Prince *et al.*, 2022). There is a project at Earnes Bay, Walney that does similar for Barrow schools.

This approach has been run by Westmorland Agricultural Society at their show ground for 20 years. Dozens of school groups come to the site and participate in a range of farm and land skills and tasks, reflecting the diversity of the curriculum. In the past 5 years this approach has been extended to school within a reasonable transport catchment of the Lane Farm site. School can now engage throughout the year and twelve are currently signed up.

Westmorland County Agricultural Society operate a four fold delivery. [Rural links](#) is an initiative which focuses on developing understanding of the countryside, agriculture and rural life and promoting its importance both to people who live in rural areas and to the wider community through volunteer-led events. Rural Links works with schools through biennial [Farm Open Days](#) and the '[Farm to Fork Roadshow](#)' going out to local events, whilst being linked with other rural organisations and companies, in order to coordinate resources and to enhance relationships.

[Learning for Life Marquee](#), part of Westmorland County Show, local schools showcase work they do throughout the term. Children are introduced and participate in their local County Show from a young age, gaining experience of the countryside and agriculture.

As already stated, there are a host of small single location groups who also provide career and industry-based school activity. The Ernest Cook Trust purchased Low Becks from Askham Bryans on the demise of Newton Rigg (see case study).

The Field Studies Council at their Blencathra site and at Castle Head, the Brathay Trust, Outward Bound, YMCA and a host of other providers use the land and the environment for a range of skills, knowledge and activity based educational purposes for pupils from across the whole of the UK, including University level. Many local authorities still own and run field centres in the lakes to provide 'in the countryside' education for their (often inner city) schools. This is when ethnic minorities get their first and often only guided introduction to wide open landscapes and wildlife.

Learning in Scotland starts before college and the **Scottish Rural College** are involved in this. They have developed a number of blended learning programmes that can be delivered in schools by schools staff with supporting materials, and at a further cost, staff. These include GCSE equivalents and courses studied alongside 'A' level / baccalaureate. These include 'investigating modern agriculture', 'veterinary terminology', 'principles of animal care' and similar horticultural and forestry programmes. This engages school age students with career options outside the standard curriculum.

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<sup>8</sup> Prince, H, Hordern, R., Towers, D & Holman, C. (2022). *Outdoor learning and place-based curriculum framework*. Cumbria: University of Cumbria.

### **SEND / EHCP Student Groups (16 to 24)**

This section covers advice and support available to SEND students, approved school and care leavers and home tutor provision.

These student’s careers progress remains the responsibility of the County Council, this support is now also enhanced by the Careers Hub at the LEP. Students with EHCP (Educational Health and Care Plans) can receive supported learning up to 24 years of age (and are required to do English and Maths in addition to their chosen study area).

The provision of this lessened in the Land-based sector after the closure of Newton Rigg and has become more geographically restricted due to transport and the accommodation loss at the college. Consequently, those with EHCPs are now less well catered for and are in something of a geographical lottery for accessible provision.

Ullswater Community College and Craven College provide Entry Level 3 at Level 0 in Animal studies, although they have no residential facilities.

Level 1 [Land Based Studies programme](#) can be studied at Award, Certificate and Diploma level. It has pathways in general land-based, agriculture, animal care, environmental conservation, floristry, horse care and horticulture. Table C shows availability in Cumbria.

Kendal College has provision in / near Kendal. Ullswater Community College work with Myerscough for the Penrith area to provide progression above Level 1.

Table C – Availability of Level 1 Land-Based Studies programmes in Cumbria

Pathway	Kendal	Ullswater	Outside but adjacent to Cumbria
General			
Agriculture	Sept 2023		Craven, Myerscough
Animal Care	✓		Craven, Myerscough
Environmental Conservation			Craven, Myerscough
Forestry			
Floristry			
Horse Care			Craven
Horticulture			Craven

It is possible to attend SRUC venues and programmes in Scotland as a SEND student with an EHCP, full support would be provided as if a Scottish resident, with the fees falling on Cumbria to meet.

The general issue cited by consultees is of students being on a EHCP ‘merry go round’ of courses, programmes and provision that results in ‘care’ over ‘progress’. This is specifically noted as an issue in the land-based sector. Employment opportunity in the sector does exist, but there are **few key ‘cornerstone’ employers** who feel able, for instance, to offer a ‘supported apprenticeship’ for a candidate. Uncertainty over support requirements and potential of the candidates are also cited as barriers.

There remains a network of committed individuals with organisational support (college or charity) that struggles to provide all the facilities and additionality that Newton Rigg could. The quality of the care appears in little doubt, yet there appears to be some further room for improvement in relation

to ultimate employment opportunities with local employers. Progression to College and up the levels is available, yet geographically restricted. There is an opportunity, with investment to engage with employers and ensure there are clear avenues for learners to ultimately move into gainful employment as their capabilities develop or allow.

#### **CASE STUDY – Nature Journaling NR Training Ltd**

Some innovative approaches to learning are ‘as old as the hills’. Charlotte Mason, the teaching pioneer, on whose original premises, the Ambleside campus of the University of Cumbria is developed, was famous for getting her pupils to



truly observe and record what was around them. They faithfully, nearly religiously, recorded in writing and sketches the local environment they experienced in their daily lives.

Newton Rigg Limited, formed after the demise of the College have a range of programmes they deliver in an attempt to continue land based provision in the county. The most prominent may be the collaboration with Lowther Castle gardens and their amenity horticulture raining programmes, but of equal merit is their work with marginalised groups.

They help students with learning difficulties on programmes supported to engage them with the **therapeutic benefits of nature**. They work on nature journals and recording their practical activities in not too dissimilar ways from those of the mid 19<sup>th</sup> century. 2023 is the centenary of her death, fitting her legacy is still providing inspiration in Cumbrian Education today.

#### **16 to 19: Schools Based Provision mainstream**

Currently the only schools-based provider of land-based provision in the county is Ullswater Community College in Penrith. The school delivers a programme at level 0 for 14-16 year olds in land based industry skills. It also provides local based opportunities for study related to the curriculum.

See Case Study in main report.

#### **16 to 19: College Based Provision**

With the demise of Newton Rigg College, the delivery of 16 to 19 land-based training has fragmented across a number of providers attempting to ‘plug the gaps’. The 16 to 19 landscape is primarily state funded and focused on new entrants. It currently comprises:

*Apprenticeships* (see also Annex G)

More details of which can be found in Annex E, where there are a possible 47 land-based related awards. The current status of provision for Cumbrians is shown in Table D, which lists only **fourteen choices** (+ 1 @ Level 6 at University of Cumbria). Currently, Cumbria Wildlife Trust and Friends of the Lake District’s [Westmorland Dales](#) Landscape Partnership have apprentices who attend Craven College for the L2 Countryside Worker programme.

The curricula on offer related to land-based currently include Engineering Apprenticeships at L2 and L3.

Of note is Carlisle College which is offering L3 Maintenance and Operations engineering technician identifying this could be linked to the **renewable energy sector**.

*Table D – Land-based Apprenticeships linked to Colleges (& Universities) available in Cumbria*

Award Title	Level	Provider				
		Askham Bryan	Craven	Myerscough	Lancaster & Morecambe	UoC
<b>Agriculture</b>						
General farm worker	2	x	x			
Land-based service engineer	2	x		x		
Land-based service engineering technician	3	x		x		
<b>Engineering</b>						
Engineering Operative	2				x	
Engineering Fitter	3				x	
<b>Trees &amp; woodlands</b>						
Arboriculturist	4			x		
Arborist	2	x				
Professional Forester	6					x
<b>Environmental</b>						
Countryside worker	2	x	x			
<b>Horticulture</b>						
Landscaping or horticultural supervisor	3	x		x		
Horticulture or landscape construction operative	2	x	x	x		
<b>Allied industries</b>						
Underkeeper	2	x				
Golf course manager	5	x				
Fariery	3			x		
Golf greenkeeper	2	x				
Equine Groom	2	x		x		
Senior Equine groom	3	x		x		

Currently none of the Scottish Apprentice programmes offered by SRUC are registered in England; there would need to be a demonstration of need and employers able to support the programme – indeed they seek to create ‘industry co-operation & collaboration’ to ensure employability standards and sizes of cohorts.

#### *City & Guilds Technical and Extended Diploma Awards*

Those offered currently in Cumbria is shown in Table E. A particularly important delivery mechanism for new entrants operates between Myerscough, and Furness and Ullswater College (Penrith) designed to fill the void to support the demise of Newton Rigg. The range is limited to Agriculture,

Arboriculture and Animal Care all at L2 and L3 in Penrith and only Animal Care (L2 and L3) at Furness College in Barrow. Travel Bursaries are provided.

Kendal College currently offers Animal studies and Agriculture (Sept 2023) at L2 and 3 and Outdoor Adventure L3, they partner with Growing Well on production horticulture. Other allied sector provision includes:

- Cycle mechanics Level 1, mountain bike suspension,
- A range of Accounting Qualifications level 2 to 4
- People Practice CIPD level 3, People management CIPD level 5
- Awards from the Institute of Leadership & Management – level 3 and level 5
- 

*Table E – Land-based City & Guilds Certificates and Diplomas Offered in Cumbria*

Award	Level	Delivery location		
		Barrow	Kendal	Penrith
Certificate in Agriculture	2		(x)	x
Advanced Technical Diploma in Agriculture	3		(x)	x
Technical Certificate in Animal Care	2	x	x	x
Extended Diploma Animal Management	3	x	x	x
Technical Certificate in Arboriculture	2			x
Advanced Technical Extended Diploma in Arboriculture	3			x

(x) conflicting information provided

Outside of Cumbria, a **comprehensive suite of land-based City & Guilds Diploma (L2) and Extended Diplomas (L3)** are also offered at Myerscough College in Lancashire covering: Agriculture, Agricultural Engineering, Animal Care & Management, Arboriculture, Land & Wildlife Management, Equine, Golf, Horticulture & Landscaping, Sports Turf and Veterinary Nursing. Myerscough receives a number of Cumbrian students every year who reside at the college during term time. Craven College provide City & Guilds Diploma (L2) and Extended Diplomas (L3) in Animal studies, Countryside Management, Horticulture and Horse Management. They also provide **L2 and L3 in Farm Machinery** and an **Access to HE (Veterinary Science)** programme.

### *SRUC Scottish Rural College*

Delivery of land-based education north of the border is under one main body SRUC at multiple centres throughout Scotland. Barony College campus is the near neighbour and attracts students as residents and from the Carlisle district and provides for a few students in the north of the county to attend via a subsidised travel and bursary scheme. Students 'can' attend any Scottish college, but at FE there must be arrangements to pay the fees and expenses, at HE level, the student is responsible for the full fee and living expenses. SRUC use 'contextualised admissions' policies and so take into account more than just the qualifications entry requirement.

The specific delivery at FE level at Barony available to Cumbrians are Agriculture, Agricultural Technician, Forestry, Arboriculture and Countryside Management. At Level 4 there is a programme that should also be of interest for farm businesses and diversification enterprises: Rural Business Management.

It is important to recognise that Scottish Qualifications do not map directly across onto the Levels system used in England, so it can be erroneous to make comparisons below Level 5.



*Table F - SRUC current delivery available to Cumbrian Students (through the Barony centre, Dumfries and Galloway & availability and progression elsewhere in Scotland)*

Subject Area	SEND / EHCP*	Further Education*			Higher Education undergraduate**		Programmes at other Scottish centres* **
		National Certificate	Higher National Certificate	Extended National Diploma	Higher National Diploma	Degree	
Agriculture	x	x	x		x	x	X blended / distance learning programmes
Animal care & veterinary		x	x		x		Veterinary nursing degree Veterinary degree Veterinary CPD
Rural skills	x	x					
Countryside management		x					
Wildlife and conservation management			x		x	x	
Forestry		x	x				X blended / distance learning programmes
Land based engineering – forestry		x	x		x		Apprentice programmes
Land based engineering – agriculture		x		x			Apprentice programmes
Equine		x	x				Degree at Scottish Equestrian Centre
Horticulture		x					Food programmes at Fife
Agri-tech / controlled environment farming						x	
Apprenticeships		X not currently registered to offer in England			X in development at level 6.		
Sports Turf & Greenkeeping	x	x	x	x	x	x	
Life science	x	x	x	x	x	x	
Rural business management							X blended / distance learning programmes
Short courses		X full range available off shelf or as bespoke					X in development as blended learning

\* - Students from Cumbria can access these programmes, depending on support from the relevant authority (Cumberland / Westmorland & Furness)

\*\* -Students from England pay full fees.

Admissions at SRUC are based on *contextualised admissions* – i.e. a wholistic view of the applicant is assessed, not just ‘entry requirements’ of qualification

## T levels

The land-based T level in **Agriculture, Land Management & Production** is available from September 2023 please see Annex F.

### **16 to 19: Non-College based provision**

Small charities offer highly specialist, but underfunded, isolated provision for certain topics:

- horticulture (Growing Well)
- equine (Biglands - Cumbria Rural Skills Academic CIC)
- agriculture (Cowran Estate)
- countryside & agriculture (Ernest Cook Trust)

## Higher Education

The provider of land-based and allied Higher Education *in* Cumbria is the **University of Cumbria**, whose delivery is focused at the Ambleside campus, bar Zoology which is run from the Fusehill Street campus in Carlisle (Annex G & Figure A). The majority of programmes are at L6, with entry points at L3 (low points A level entry) or L4 covering conservation, forestry and outdoor education. There is one L5 award point for Forestry FdSc and one L7 award for Outdoor. The University also offers post-graduate research programmes leading to MPhil and PhD; the majority of topics studied by these students relate to disciplines focused through the research [Centre for National Parks & Protected Areas](#), which covers the interrelated themes of ecology& conservation, human-nature relations, cultural landscapes and rural & visitor economy.

The University, at its Ambleside campus, also offers the L6 Professional Forestry Apprenticeship. The first 25-stong cohort is half way through its first year and comprises staff from the Forestry Commission, Forestry England, the National Trust and Woodland Trust. A second cohort will be recruited from Easter to start in September 2023. This trailblazing programme has been highlighted recently in the Times.

**Myerscough College**, based in northern Lancashire, provide the full range of traditional land-based programmes from Level 4 (Foundation Certificate) to Level 7 (Masters). Discipline areas include: Agriculture, Agricultural Engineering, Animal Studies, Arboriculture, Countryside (no L7), Equine studies, Farriery (no L7), golf management, Horticulture, Landscape design and Sports turf (Figure A). The full range of courses can be seen in Annex G. A particular feature of Myerscough programmes is that many of them are available online, notably many of the Masters, indicative of seeking to gain efficiencies of scale.

Other Higher Education programmes are offered by Kendal College, and Craven college in neighbouring North Yorkshire (Table 4). Students can also opt to travel to Askham Bryan at York, Kirkley Hall (part of Northumberland College consortium) at Ponteland in the NE, or cross the border, into Scotland to SRUC campuses (closest Barony).

Students crossing from Scotland into England are unusual as Scottish students pay minimal fees north of the border (English students do) in contrast to English students. SRUC-Barony offer a range



of less traditional HE programmes such as MSc Organic Farming, HNC Poultry Production, MSc Soil & Sustainability, MSc Food Security and HNC/D and BSc Agricultural Technology.

The **University of Lancaster** has academic programmes in Biology, Zoology, Ecology, Conservation, Earth and Environmental Sciences. These are offered at undergraduate and Masters levels and there are many opportunities for doctorate level research. There is an annual programme of short and leisure courses.

Within and around Cumbria there is a satisfactory range of substantive delivery for traditional higher education land-based programmes and some derivatives. **SRUC** provide a comprehensive suite of L3 to L6 programme forming part of a well thought through an integrated Scottish system (see Table F).

There is scope for higher level apprenticeships in other subjects, as demonstrated by the level 6 Forest Professional award at UoC.

Newer curriculum areas of agricultural technologies, sustainable land management, climate action, public goods provision, visitor & rural economy and heritage land management should be addressed through a modular system for up and reskilling through the Governments Lifelong Learning Fund.

Table G – Higher Education Provision by Location & Subject in and Around Cumbria

	In Cumbria		Surrounding Cumbria					
	Kendal	UoC	Askham Bryan	Craven	Kirkley Hall	Myerscough	SRUC	LU
Agriculture			X			X	X	
Agricultural Engineering						X	X	
Animal Management	X		X		X	X	X	
Arboriculture						X		
Conservation (var.)	X	X	X	X	X	X	X	X
Equine			X		X	X	X	
Farriery						X		
Forestry (& woodland management)		X					X	
Game						X		
Horticulture						X	X	
Outdoor	X	X						
Turf (golf & sport)						X	X	
Zoology		X						

### Upskill & reskilling/Continuing Professional Development

These training opportunities are mainly delivered by a combination of 16 non-college based providers comprises independent organisations or training companies in different combinations (Table H). For example, John Jones Training & Assessment Ltd offers their own training as well as supporting Westmorland County Agricultural Society. As a result, **the CPD provision offer is most complex.**

The focus tends to be on short course provision, which is either accredited or non-accredited. Some short course provision is provided by colleges, but these tend to be related to added value for their substantive programmes eg Chainsaw accreditation for Arboriculture students. See Annexes H -J for more details.

Training courses are of various lengths and levels.

It can be credit or non-credit bearing (certificates of attendance).

Table H – Summary of CPD Offer in Cumbria

CPD provider	Offer
Bill Hogarth Memorial Apprenticeship Trust	Coppice wood apprenticeships
Craven college	Countryside skills, Wildlife ID, Sheepdip, horticulture
Cumbria Woodlands	Online woodland modules
Drystone Walling Association	Drystone walling
Eco-Innovation NW	Low carbon solutions for business placements
Farmers Network	New Entrants scheme, farming for future programme
Fieldfare Associates	Soil and nutrient management
Freshwater Biological Association	Technical freshwater species courses
John Jones Training & Assessment Services	Agricultural and forestry certificates
Low Training	Agricultural and forestry certificates
National Hedgelaying Society	Hedgelaying courses
NR Training Ltd	Horticulture, advanced dairy, SQP, Pesticides, nature journaling
Rural Skills Hub	Combined delivery of the DSWA and NHS
University of Cumbria	L7 Outdoor Reflexive practitioner
Westmorland County Agricultural Society	Agricultural and forestry certificates
Yorkshire Dales Millennium Trust	Rural Apprenticeship Scheme
Scottish Rural College (eg Barony in Dumfries & Galloway)	A vast array of short course programmes, from one day events to individual modules from programmes. Eg. Peatland management short course programme

One of the main accreditation organisations is [LANTRA](#) (one of the leading awarding bodies for land-based industries in the UK and Republic of Ireland). Table I summarises LANTRA training awarded in Cumbria for the last three years including certificates of attendance (60.5%) and accredited training (39.5% - 607). Of the accredited training L1 accounted for 263 awards, L2 317 awards (of which *Animal transport on roads* accounted for a third), and L3 only 25. Drystone walling on its own accounted for 353 awards (nearly 60% of all credit bearing courses).

The overall picture is one of **low numbers of people gaining high skill level accreditation** over the last three years. This could be interpreted as either a lack of interest or that there are already enough master craftspeople in the county.

The Forestry sector via ICF, working with the Forestry Commission, have recently launched (Feb 03) a national [Forestry Training Fund](#) in response to the ICFs 2021 report. This programme offers 100% grants for forestry and woodland accredited training up to £300on in value from a [specified list](#) of approved providers covering: general woodland & forestry knowledge (10), chainsaw courses (25), deer management (3), plant & large machinery (20), pest management and control (6), fencing & hedgelaying (12), pesticides (7) and instructor courses (2). This fund has been proved very popular meaning the **next available funding round for courses will start for 31 March 2024**.

There are six approved providers in Cumbria:

- Apical Tree Management, Ulverston
- Cumbria Woodlands, Kendal

- Gardeners Guns Ltd & Purdoms Training Ltd, Longtown
- John Jones Training & Assessment Ltd, Kirkoswald
- Newton Rigg Ltd, Penrith
- Silviculture Research International, Penrith

Table I – LANTRA Courses awarded within Cumbria between April 2019 and November 2022  
(Source: pers. Comm D, Potter, LANTRA, 31/01/23)

Award Theme	Level	Number
Chainsaws	-	147
Hand held small equipment (eg brushcutters/strimmers, winches, leaf blowers, abrasive machines, battery powered)	-	155
Arboriculture (felling, processing, windblown trees, F & A operations, tree climbing and use of chainsaw, powered pole pruner, woodchippers, basic tree survey and inspection)	-	178
Driving skills (ATV, tractors, lift trucks, telescopic lift trucks, dump trucks, trailers,)	-	109
Power driven machine operation (lorry loader, hydraulic lorry loader, pedestrian mowers, ride on mowers, remote control mowers, rollers, Slinger/signaller)		83
Pesticides (hand held application, safe use of)	-	61
First Aid	-	103
Winter Servicing and Servicing of vehicles	-	39
Firearms (shotgun loading, shotgun coaching, safe use )	-	45
Vermin control	-	11
H&S in Construction environment	1	8
Dry stone walling	1	257
Fork Lift Truck	2	64
Animal Transport on Road	2	112
Chainsaw maintenance & Cross cutting	2	1
Safe Application of Pesticide (various)	2	39
Wild game meat hygiene	2	16
Drystone walling	2	84
Felling & processing trees up to 380mm	2	1
Severing uprooted or windblown trees using a chainsaw	3	3
Pest management Services	3	10
Drystone walling	3	12
<b>GRAND TOTAL</b>		<b>1538</b>

A particularly useful recent short course development is the SRUC-Barony's [Peatland Restoration](#) programme. This course consists of two, week-long sessions supported by additional online learning, and is aimed at graduates currently involved in, or aspiring to work in, the planning of peatland restoration schemes. The overall aim is to develop expertise in mapping and surveying peatland, designing effective interventions site restoration, all stages of planning, funding and delivery. Detailed course content is shown in Annex M.

#### PLANNED DEVELOPMENTS IN PROVISION (Sept 2023 onwards)

The main FE developments for new entrants for land-based training in Cumbria from September 2023 will be the arrival of the new **T level in Agriculture, Land Management & Production**. The next

substantive development is with regard to planned Apprenticeship expansion amongst the colleges network. Beyond these two, specific developments of note include: the **Cumbria Curriculum**, the influence of **Eden Project North**, and the expansion of level 1 land-based provision by Kendal College. Finally, a **GCSE in Natural History** is still under development review by the Department of Education.

With regard to Higher Education, planned developments are limited to the University of Cumbria. Further opportunities should evolve following the recent signing of an MOU with SRUC.

Given the more responsive nature of CPD short course provision, there is currently little to report here, apart from three L4 modules proposed by the University of Cumbria and river restoration training from the Freshwater Biological Association at Wray.

### **The Cumbria Curriculum (3 to 16 years)**

Place based learning provides opportunities for school aged pupils to learn about nature, their local environment, and the wider Cumbrian landscape in terms of green and blue spaces, cultural and land-based heritage. Cumbria Council recently commissioned a report to investigate this to develop a **Cumbria Curriculum** (*Place based Learning in Cumbria, Goad et al., 2022*). It explores opportunities to learn about topics such as climate change, sustainability, biodiversity and so on, inside and outside the classroom. These are underpinned by the [Department of Education's Sustainability Strategy](#) with four main themes of changing world, net zero, resilient to climate change and better environment for future generations; which resonate well with the land based sector.

Survey data were gathered from 39 schools during 2022 with follow-up in-depth interviews with 11 in the pre-secondary group, with notably only four from the secondary grouping, when many young people are beginning to think about employment. Data were also collected from 47 providers of place-based learning.

Most place-based learning was driven through specific parts of the curriculum, such as geography or the sciences, some through the arts of English. Visits out, visitors in and outdoor learning were typical delivery mechanisms. Providers focused on Key Stages 1 to 3, mostly topic-led and outside usually for geography and science curricula. The report also identified a series of facilitating factors such as availability of school grounds, supportive school leadership, school location providing ease of access to the outdoors and local community engagement. Barriers related to cost, curriculum pressure, lack of diverse cultural experiences especially in isolated rural areas, lack of awareness of what provision is out there and more staff training.

With respect to land-based activities specifically, only 12 providers covered this topic. Data gathered from schools shows that environmental topics were very popular such as nature conservation, biodiversity, visits to nature reserves, forest schools and outdoor adventure activities. There is almost no mention explicitly about farming or forestry in the curriculum analysis. In contrast, of the providers who responded, eight were farming or agricultural organisations, four forestry, eighteen environmental and four outdoor specific. Schools and providers felt some form of centralised online resource hub was needed. Goad *et al.* (2022) also identified the potential of LANSS (see Part 1 of this report) to provide information about employers and post-16 courses. In conclusion, it is evident the land-based sector is an essential component of place-based learning for the young people of Cumbria.

Summative:

- The land-based sector is an essential component of place-based learning for the young people of Cumbria
- Place based education does not explicitly teach land-based sector themes

### T level – Agriculture, Land Management and Production

The main development for state funded training for the land-based sector is the arrival of the new T level in [Agriculture, Land Management and Production](#). This is equivalent to 3 A levels, details of which can be seen in Annex F. Proposed local providers include:

- William Howard School, Brampton from 2024
- Myerscough College, Preston from 2023 [negotiations are on going as to if this will be on offer in Penrith]
- City of Sunderland College, Sunderland from 2023
- Askham Bryan College, York from 2023
- Kendal College at Kendal from 2023

Within the T level, core content is supported by a work-based project and a specialism in one of the following areas:

- habitat management (land and water)
- land-based engineering
- livestock production
- ornamental horticulture and landscaping
- tree and woodland management and maintenance

Local providers have yet to declare which specialisms will be offered.

There has been some delay in the roll out of all specialisms. Agriculture, land-based engineering, Tree & Woodland Management and Horticulture will be available from September 2023. Additional specialism for animal will be available from Sept 2024 and for equine in 2025. No start date has yet been set for the habitat management specialism. As a result, relevant Diploma programmes will continue until those dates.

Given that the T level is equivalent to 3 A levels and designed for those students attaining grade 6 or above at GCSE, Myerscough have decided to put a **one-year bridging programme** in place to help less able students make the transition from GCSEs. There is concern in the land-based college sector regarding cohort viability given the limited numbers opting for land-based programmes normally.

### Apprenticeship Expansion

With regards to Apprenticeships, the new Livestock Unit Technician L3 will be offered by Myerscough, Craven, Kendal and Askam Bryans in September 2023.

Kendal will also offer the General Farm worker L2 (September 2023) as well as look to offer L4 Assistant Farm Manager once developed (p28, of their course guide), Keeper & aquarist L3 and Animal Welfare assistant L2. Kendal College will be running these from Kendal only at present.

No other Apprenticeships the Allied land-based professions are proposed at present beyond those already offered.



## Eden Project North

Lancaster & Morecambe College will be offering in partnership with the **Eden Project North** (based at Morecambe) in animal care and management with specialisms in wildlife, ecology and conservation. Programmes will include:

- Level 1 – land-based studies with animal studies pathway
- Level 2 – animal care
- Level 3 – animal management

## Level 1 provision

Kendal College will be offering City & Guilds L1 Land-Based in September 2023 and will be the only provider in county.

## Higher Education Developments

The University of Cumbria plans to add to its portfolio:

- PgC Tourism Management due to start September 2023
- MSc Forestry by Distance learning date TBA
- MSc Countryside conservation theme date TBA
- L5 Outdoor Apprenticeship is under review

The **University of Cumbria** has recently signed an MoU with the Scotland's Rural College which will provide additional opportunities for collaborative skills training. The University has also validated three 'stand alone' L4 University Certificates in:

- Mapping Environmental Assets
- Farm Business Opportunities
- Upland Farming for Net Zero

Teaching and learning materials are in preparation.

These will be followed by: Collaborative Practice in the Uplands, Trees on Farms & Fells, Improving Efficiency & Productivity.

SRUC are developing a suite of post graduate programmes in :

- Agricultural professional practice
- Animal nutrition
- Animal welfare
- Applied poultry management
- Environmental protection & management
- Epidemiology and zoonoses
- Wildlife protection and
- Ecological economics

SRUC, by offering ecological economics recognise the future importance of accounting for and managing 'Natural Capital' and they have also set up 'challenge centres' to research and develop these areas further. They are a research body that aims at 'workable solutions' over 'pure' academic work, they are near the end of the process of becoming a degree awarding body in their own right. They are also developing ideas for programmes to support the in-work and future new entrants into 'sustainability' and resource management & climate change without having settled on a 'name' for this work. Again, this fits into their overarching strategic priorities which include developing 'world changers' in addition to academically and technically able.

The **Freshwater Biological Association** will be offering three [technical short courses](#) about river restoration to support their practical course, which include:

- Assessing a System for Opportunity: Desk and Field Audit
- Using Modelling to improve Understanding,
- Using Modelling in Design

### ***Planned New Provision Summary***

The focus here is very much on the development of the Cumbria Curriculum and the arrival of the new T Level .

### **Provider Barriers & Enablers**

As part of the interview process, barriers and enablers to provision were discussed. The main barriers to provision development were identified as follows:

- *Cohort viability* – low numbers related to a combination of limited demand and multiple delivery centres can often lead to the foreclosure of provision pre-enrolment. This can act as an inhibitor to provision development in the first place.
- *Post code lottery* – the ability of a student to attend their course of choice can be limited by transport availability and timetabling. In some instances, the public transport only allows students to access only one provider which does not offer the training they want.
- *Availability of trainers and assessors* – like national trends identified in Nye et al. (2021) and ICF (2021), there is a distinct lack of staff who can provide training and assessment. This can be compounded by the Cumbrian low-wage, high cost accommodation economy.
- *Co-ordination of delivery* - the county and lacks a co-ordinated plan across providers leading to duplication which in turn can create cohort viability challenges.
- *Lack of Accommodation* – with the closure of Newton Rigg for FE and limited residential capacity at Ambleside there is a lack of affordable housing and for younger or SEND students safe 'wardened' systems. The rural character of land-based training exacerbates this challenge compounded by poor transport infrastructure and Cumbria's geography.
- *SEND/ECHPs student needs* - specialist staff and facilities are required, living away from home is often not possible, and where replaced by long travel times, may not suit their individual needs.
- *FE finance model* – under DfE rules, specialist agricultural colleges, such as Myerscough, receive a 2.5 funding uplift per land-based student in contrast to general FE colleges such as

Kendal College. This has serious resourcing implications for facilities, equipment, learner needs and staff recruitment.

- *CPD funding* – only 20% of an accredited course fee is paid by the DfE in advance, 80% of fee income is paid on satisfactory completion of a programme (ie. a pass). Providers can thus expend income on delivery with no ability to cover costs if the student leaves part way through or just attends the training with no assessment completed. Consequently, providers will opt to deliver those CPD programmes most likely to need pass accreditation rather than invest in courses with no regulatory or legal requirement. Cf. chainsaw operator vs. ancient woodland restoration methods.
- *Funds for non-accredited training* – there is generally no funding from central government unless it's a special project (eg Forestry Training Fund 2023). Providers resort to full economic costing which can make courses too expensive for the client.
- *Innovative content provision* – there are challenges with funding innovative training where there is yet to be a proven evidenced demand eg renewables technicians

To overcome some of these challenges, providers suggested a range of enablers:

- Provision of effective and timely advice to prospective students
- Understanding client needs rather than wants
- Better co-ordination of development, delivery and information flow
- Integrated public transport system to provide better access to enough opportunities across the wider areas of the county
- Encourage informed option choices made at 14 with better supported advice and provision of land-based allied sector career opportunities
- Invest in and actively promote the forthcoming Lifelong Learning Fund
- Horizon scan more effectively for new training demands

## ANNEX G – Apprenticeships

### What are they?

Apprenticeships have been designed by employer groups (known as trailblazers) which have been approved by the institute of Apprenticeships and Technical Education. They provide the opportunity for people to learn on-the-job in relation to a specific occupation.

### How do they differ from other qualifications?

Apprenticeships are work-based qualifications with 80% of time spent on the job, and 20% in the classroom, the converse to T levels. They are offered at different levels from level 2 through to level 7; whereas T levels are set at Level 3.

### Content

There are 47 apprenticeships related to the land-based sector which could be offered to support employment in Cumbria (Table J). Those titles in **red** indicate apprenticeships still waiting for their final assessment deliverer to be approved in principle (as of 13/01/23). Those in **green** have an assessment dispensation running, see hyperlink. Those in **purple** are in revision but still can be delivered (as of 13/01/23).

Table J – Land-Based Apprenticeships registered in England

Title	Level	Length (mths)	Max funding available	Hyperlink to details
<b>Agriculture</b>				
Livestock Unit Technician	3	18	5000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/livestock-unit-technician-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/livestock-unit-technician-v1-0</a>
Vet technician (livestock)	5	24	13000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/vet-technician-livestock-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/vet-technician-livestock-v1-0</a>
General farm worker	2	18	5000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/general-farm-worker-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/general-farm-worker-v1-0</a>
Agriculture or horticulture professional adviser	6	30	14000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/agriculture-or-horticulture-professional-adviser-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/agriculture-or-horticulture-professional-adviser-v1-0</a>
Poultry Technician	3	18	6000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/poultry-technician-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/poultry-technician-v1-0</a>
Crop Technician	3	24	15000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/crop-technician-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/crop-technician-v1-0</a>
Poultry worker	2	12	5000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/poultry-worker-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/poultry-worker-v1-0</a>
Land-based service engineer	3	36	21000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/land-based-service-engineer-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/land-based-service-engineer-v1-0</a>

Land-based service engineering technician				<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/land-based-service-engineering-technician-v1-1">https://www.instituteforapprenticeships.org/apprenticeship-standards/land-based-service-engineering-technician-v1-1</a>
Dairy Technologist	5	36	26000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/dairy-technologist-v1-1">https://www.instituteforapprenticeships.org/apprenticeship-standards/dairy-technologist-v1-1</a>
Assistant farm manager	4		In development, trailblazer group developing submission	
<b>Trees &amp; Woodlands</b>				
Forest craftsperson	3	24	14000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/forest-craftsperson-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/forest-craftsperson-v1-0</a>
Professional arboriculturist	6	36	22000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/professional-arboriculturist-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/professional-arboriculturist-v1-0</a>
Arboriculturist	4	30	14000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/arboriculturist-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/arboriculturist-v1-0</a>
Professional Forester (integrated degree)	6	36	22000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/professional-forester-integrated-degree-v1-1">https://www.instituteforapprenticeships.org/apprenticeship-standards/professional-forester-integrated-degree-v1-1</a>
Arborist	2	24	15000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/arborist-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/arborist-v1-0</a>
<b>Environmental</b>				
Countryside ranger	4	26	9000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/countryside-ranger-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/countryside-ranger-v1-0</a>
Countryside worker	2	12	4000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/countryside-worker-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/countryside-worker-v1-0</a>
Water Environment worker	3	18	12000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/water-environment-worker-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/water-environment-worker-v1-0</a>
Ecologist	7	36	9000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/ecologist-degree-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/ecologist-degree-v1-0</a>
Environmental Practitioner (degree)	6	53	27000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/environmental-practitioner-degree-v1-1">https://www.instituteforapprenticeships.org/apprenticeship-standards/environmental-practitioner-degree-v1-1</a>
<b>Horticulture</b>				
Horticulture and landscaping technical manager	5	36	17000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/horticulture-and-landscaping-technical-manager-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/horticulture-and-landscaping-technical-manager-v1-0</a>
Landscaping or horticultural supervisor	3	36	8000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/landscape-or-horticulture-supervisor-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/landscape-or-horticulture-supervisor-v1-0</a>
Horticulture or landscape construction operative	2	24	6000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/horticulture-or-landscape-construction-operative-v1-1">https://www.instituteforapprenticeships.org/apprenticeship-standards/horticulture-or-landscape-construction-operative-v1-1</a>

<b>Allied Industries</b>				
Advanced sports turf technician	3	24	8000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/advanced-sports-turf-technician-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/advanced-sports-turf-technician-v1-0</a>
Underkeeper	2	18	7000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/underkeeper-v1-1">https://www.instituteforapprenticeships.org/apprenticeship-standards/underkeeper-v1-1</a>
Golf course manager	5	36	17000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/golf-course-manager-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/golf-course-manager-v1-0</a>
Animal care and Welfare Assistant	2	12	5000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/animal-care-and-welfare-assistant-v1-1">https://www.instituteforapprenticeships.org/apprenticeship-standards/animal-care-and-welfare-assistant-v1-1</a>
Keeper and aquarist	3	24	7000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/keeper-and-aquarist-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/keeper-and-aquarist-v1-0</a>
Farrier	3	42	15000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/farrier-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/farrier-v1-0</a>
Sports turf operative	2	18	5000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/sports-turf-operative-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/sports-turf-operative-v1-0</a> New start 01/03/23
Golf greenkeeper	2	24	6000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/golf-greenkeeper-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/golf-greenkeeper-v1-0</a>
Fencing Installer	2	18	8000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/fencing-installer-v1-1">https://www.instituteforapprenticeships.org/apprenticeship-standards/fencing-installer-v1-1</a>
Outdoor learning specialist	5	24	13000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/outdoor-learning-specialist-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/outdoor-learning-specialist-v1-0</a>
Outdoor Activity instructor	3	12	6000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/outdoor-learning-specialist-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/outdoor-learning-specialist-v1-0</a>
Equine Groom	2	12	5000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/equine-groom-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/equine-groom-v1-0</a>
Senior Equine groom	3	12	6000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/senior-equine-groom-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/senior-equine-groom-v1-0</a>
<b>Food processing</b>				
Packhouse line leader	3	18	6000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/packhouse-line-leader-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/packhouse-line-leader-v1-0</a>
Abattoir worker	2	16	6000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/abattoir-worker-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/abattoir-worker-v1-0</a>
Butcher	2	18	9000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/butcher-v1-1">https://www.instituteforapprenticeships.org/apprenticeship-standards/butcher-v1-1</a>
Advanced butcher	3	18	12000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/advanced-butcher-v1-1">https://www.instituteforapprenticeships.org/apprenticeship-standards/advanced-butcher-v1-1</a>

<b>Heritage</b>				
Cultural Heritage Conservation technician	4	24	9000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/cultural-heritage-conservation-technician-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/cultural-heritage-conservation-technician-v1-0</a>
Cultural Heritage Conservator	7	54	27000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/cultural-heritage-conservator-degree-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/cultural-heritage-conservator-degree-v1-0</a>
Historic Environment advice assistant	4	24	10000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/historic-environment-advice-assistant-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/historic-environment-advice-assistant-v1-0</a>
Historic Environment Advisor	7	36	15000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/historic-environment-advisor-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/historic-environment-advisor-v1-0</a>
Archaeological specialist	7	36	15000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/archaeological-specialist-degree-v1-0">https://www.instituteforapprenticeships.org/apprenticeship-standards/archaeological-specialist-degree-v1-0</a>
Archaeological technician	3	12	9000	<a href="https://www.instituteforapprenticeships.org/apprenticeship-standards/archaeological-technician-v1-1">https://www.instituteforapprenticeships.org/apprenticeship-standards/archaeological-technician-v1-1</a>

(Source: (<https://www.instituteforapprenticeships.org/apprenticeship-standards/>? Accessed: 13/01/23)

## **Occupational details of key land-based apprenticeships**

### ***Dairy Technologist (Details taken from relevant hyperlink above)***

This occupation is found in the food and drink manufacturing sector in the dairy industry. Dairy products include liquid milks, cream, cheeses, ice creams, powders and ingredients, yoghurt, butter, sports drinks, baby formulas, and plant-based dairy alternatives.

The broad purpose of the occupation is to provide expert technical advice and support on a variety of aspects of dairy production helping to drive a quality culture. They provide dairy technical specialist knowledge in audits. They help investigate operational issues and come up with innovative solutions. They support projects, these may focus on continuous improvement or introducing new processes or products. Developing technical dairy knowledge within the team is also part of the role.

In their daily work, dairy technologists interact with cross functional teams and stakeholders. Internally this may include operations, quality assurance, continuous improvement, engineering, financial, commercial, marketing, and the site leadership team. Externally, this may include suppliers, Original Equipment Manufacturers (OEM), customers, and visitors.

They may spend time in the production environment, laboratory, or office.

They may work alone or as part of a team depending on the task. They typically report to the head of quality, plant manager, or technical manager.

Dairy technologists are responsible for ensuring dairy products are food safe and meet quality requirements along with customer expectations. Health and safety, environment and sustainability, financial considerations, and ethical working practices must also be met. They are expected to keep up to date with regulations and dairy product developments.

### ***Livestock Unit Technician***

This occupation is found in medium sized agricultural businesses, in primary production.

The broad purpose of the occupation is to operationally manage the livestock related tasks on the farm such as animal health and welfare from conception and birth through to the customer; and to support business productivity. The individual will make key decisions on a day-to-day basis to ensure the protection of their own and health and safety of others. This includes ensuring the standards of cross compliance, farm assurance, biosecurity and infrastructure security are met. The Livestock Unit Technician will usually only work with one species. The role will include the safe use and maintenance of farm vehicles, including the equipment used for transporting or producing feed. The individual will be required to understand, record and meet the business Key Performance Indicators that are set out by the employer.

In their daily work, an employee in this occupation interacts internally with team members including line manager, business owner (principal) /manager and other departments (if applicable) on the farm. They may have the opportunity to manage people internally and manage external relationships. The individual will work alongside allied industry, to make formative decisions to assist the productivity of the livestock including breeding, nutrition and health plan. In addition to this, they will provide factual data to third parties involved in the farm such as assurance auditors and vets.

An employee in this occupation will be responsible for making decisions about daily management of livestock such as changes in diet based on nutritional values in feed. They will manage livestock before, during and after parturition, providing accommodation that meets the animal's requirements for optimal health and performance. They also select and prepare livestock for sale or transfer. The individual will be responsible for completing daily records and reporting to senior management, assisting with overall strategic decisions to help drive productivity, livestock welfare and farm health and safety in line with industry standards. Depending on the business structure, they may supervise junior members of staff. Typical working hours will depend on farm type and labour structure (for example, dairy farms require early start due to milking). A Livestock Unit Technician will be expected to do long hours, only as permitted within UK employment law.

### ***Animal Care & Welfare Assistant***

Animal Care and Welfare Assistants look after the routine day to day husbandry and care of domestic and/or wild animals under guidance in a variety of different settings. The work is carried out individually or as part of a team in places such as kennels and catteries, laboratories, animal welfare centres, farm parks, rehabilitation centres, retail outlets and in the transportation of animals. Animal Care and Welfare Assistants must have a strong work ethic and be prepared to work irregular hours in all weather conditions. They must maintain safe working practices and taking responsibility for themselves, animals and others.

Typical job roles include: kennel/cattery assistant; animal technician, animal welfare assistant; animal day care assistant; animal collection officer; wildlife rehabilitation assistant; zoo keeper assistant, pet retail assistant, animal handler, veterinary care assistant, farm park assistant.



## ***Countryside Worker***

Countryside Workers carry out specific environmental and conservation tasks and they will also be clear about how practical conservation work interacts with the productive and recreational use of the countryside, including allied farming (livestock and crop production) and sporting activities (most commonly fishing and shooting) and how these relate to countryside management practices. For example, a Countryside Worker would know that work on paths on upland farms should avoid lambing season and that work on grouse habitat should be done in the winter.

Countryside Workers will be able and willing to do challenging work outdoors, in a variety of locations, which may be remote, including moorland, heathland, woodland and coast, interact with the public and explain their work as well as undertaking their role all year round in a variety of weathers, both on their own and as part of a team. Their day to day work will include:

- Building and repairing a variety of field boundaries including fences, walls and hedging. The type and techniques used will depend on the use of the boundary, for example, controlling livestock to maintaining geographical location specific landscape features such as stone walls and hedging.
- Maintaining public rights of way for walkers, cyclists and horse riders. The type of surface and associated gates, stiles and bridges varying depending on the use, terrain and landscape.
- Improving habitats and woodland to get them in good condition by using a variety of appropriate techniques, including pruning, felling or planting so native flora and fauna (plants and animals) can thrive. This varies depending upon the local area. For example, in the North York Moors native wildlife includes freshwater salmon, golden plover, merlin, hen harrier, turtle dove and freshwater pearl mussels while native plants include oaks, ash and a wide variety of cornfield flowers. Countryside Workers control invasive species, such as Himalayan Balsam, and use the right technique for each species – this could be cutting back, pulling out, spraying or injecting with pesticide.
- Surveying/monitoring habitats and flora and fauna to understand species numbers and relate this to relevant habitat management practices. For example, monitoring of the numbers of merlin (native bird of prey) has resulted in areas of moorland being left unburned (burning is a common management technique to encourage new heather growth) and the establishment of single trees encouraged as these are attractive to Merlin in a moorland landscape.

## ***Crop Technician***

As a Crop Technician you will be responsible for optimising crop/plant yields through establishment, management, harvest and post-harvest operations, while maintaining and improving the surrounding environment. You will also need to keep up to date with technological advances and new innovations. Being a Crop Technician requires self-motivation and the ability to work both independently and as a team player to complete tasks safely and efficiently. Many companies now use automation for a number of routine tasks, which will require technical skills to operate. This standard provides the opportunity for individuals to acquire the ‘knowledge’, ‘skills’ and ‘behaviours’ required and follows a ‘core and options’ approach. This allows the flexibility to learn core subjects and then specialise in either ‘soil based system’ or ‘containerised systems’.

### ***Fencing installer***

The fence installer is responsible for the installation of different types of fences, gates and barriers, across a broad cross-section of different environments from domestic and agricultural, through to commercial, industrial, high security and infrastructure (e.g. highways, rail and utilities).

The areas within Fencing are:

- General fencing
- Perimeter security systems
- Vehicle restraint systems
- Gates, doors and barriers

With the diversity of the industry, there are a wide range of career opportunities. The fence installer works to detailed specifications and standards to ensure correct and safe installation. The fence installer must have the ability to read and understand specifications and plans, prepare sites and select relevant materials to carry out installation, maintenance or repairs to meet the relevant contract requirements. The work will include using a wide variety of materials, tools and machinery.

### ***Forest craftsperson***

This occupation is found in forestry and land management. This includes governmental, non-governmental, private, public, charitable and local authority organisations in England, Scotland, Wales and Northern Ireland that have an interest in forestry and woodland creation and management. Landowning organisations or private estates may employ their own forest craftsperson(s) and or use contractors who employ forest craftspersons.

The broad purpose of the occupation is to carry out the practical operations required to create, maintain and harvest forests and woodlands. Most employers will specialise in either establishment and maintenance, or harvesting. Employees in both sub-sectors would be expected to be aware of the full range of forestry operations, and to understand the commercial, environmental and social impacts of forestry. Establishment and maintenance operatives will carry out the range of duties required to prepare the ground, plant trees and undertake ongoing maintenance, including weeding, beating up and pruning. Harvesting operatives will carry out the range of duties required to fell, process and extract trees and timber. This occupation works predominantly in either established forests, woodlands or on open land. They need to be able and willing to do practical work outdoors in all weathers. Forestry and woodland sites are often in remote locations and the ability to travel independently to access sites is advantageous.

An employee in this occupation will be responsible for initiating and completing their own work to specification, with minimal supervision, ensuring they meet set deadlines. They are responsible for meeting quality requirements and working in accordance with legislation, environmental, health, safety and welfare considerations. They are accountable for the health and safety of themselves and others. They are expected to exercise responsibility, autonomy and judgement within limited parameters. They perform tasks that are complex and non-routine and may be in a variety of contexts. Forest operatives are responsible for checking their tools, equipment and personal

protective equipment (PPE) are maintained and safe to use. They report to team leaders and or works supervisors.

### ***General farm worker***

To support the operation of farm enterprises through maintaining a culture of health and safety, biosecurity, engaging with third parties, maintaining crop, animal handling and health, maintenance and cleanliness of machinery. The General Farm Worker will typically be required to drive farm vehicles and must hold the appropriate license. The individual will work alongside the supervisor, supporting daily operations for the farm enterprises including identifying and maintaining animal or plant health performance, conducting routine tasks and assisting with general record keeping practices. The individual will manage the storage of forage and crop, minimising waste and disposing of necessary waste appropriately. Animal welfare and risk awareness and prevention are integral to this occupation.

A General Farm Worker is likely to specialise in Livestock or Crop. This Apprenticeship Standard takes a core and options approach. All apprentices will complete the core and must select the one most appropriate option to their role: Livestock Worker or Crop Worker.

**An employee in this occupation will be responsible for** carrying out routine work set by their supervisor, to the required business standards. This includes assisting with animal and plant health and nutrition, maintaining health and safety and biosecurity, operating farm vehicles and optimising the environmental impacts of animal and crop performance. Office work is minimal although basic daily record keeping will be required. Typical working hours will depend on farm type and labour structure. A farm worker will be expected to do long hours, only as permitted within UK employment law.

### ***Horticulture & Landscape construction operative***

This occupation is found in a wide range of outdoor spaces with horticultural spaces including public parks and gardens, green spaces, schools, tourist attractions, business and retail parks, historic gardens, private gardens, and estates. Some organisations own the horticultural space such as public gardens and private estates. Some will work on a variety of spaces belonging to other people such as domestic gardens, construction sites, retail and business parks. Employers may be charities, commercial businesses or governmental organisations and range in size from micro businesses through to large employers. Many organisations will be specialised in their activities, such as grounds maintenance or landscape construction.

The broad purpose of the occupation is to undertake practical operations required to create and maintain horticultural spaces. This includes both the soft aspects (plants and soil) and the hard elements (surfaces, features and structures). Some will carry out the full range of operations from landscape construction through to maintenance, although the majority will focus on one specialism due to the breadth of skills required. Horticultural specialists maintain soft and hard elements of the space. This will include planting and maintenance activities. Landscape construction specialists will install landscapes including building hard surfaces, structures and features and planting. This will include planting and maintenance activities. Horticulture or landscape construction operatives frequently work outdoors year-round and in all weathers. They sometimes work at heights for

example pruning taller plants and hedges. Horticulture or landscape operatives will require qualifications and or training to undertake activities such as use of machinery.

In their daily work, an employee in this occupation interacts with supervisors and colleagues. Depending upon the employer they will interact with clients, members of the public, other trades and landowners.

An employee in this occupation will be responsible for completing their own work to specification, with minimal supervision, ensuring they meet set deadlines. They are responsible for meeting quality requirements and working in accordance with legislation, environmental, health, safety and welfare considerations. They are accountable for the health and safety of themselves and others. Horticulture or landscape operatives are responsible for checking their tools, equipment and personal protective equipment (PPE) are maintained and safe to use. They report to supervisors, team leaders, head gardeners or clients.

### ***Land Based service Engineer***

LBSE Service Engineers will typically work on the employers premises under supervision and where appropriate and safe to do so work on their own initiative. They work on a diverse range of tasks and machinery, plant and equipment specific to their sector within the land-based engineering industry. For example these may include:

- Preparation of new and second-hand machinery for sale or hire
- Pre-delivery inspection of machinery carried out in accordance with manufacturer's and employer's procedures
- Performing routine service and maintenance operations in accordance with manufacturer's schedules and employer's instructions
- The preparation of equipment for repair for example, cleaning, dismantling and reassembly of machinery and their component parts, this may be carried out under supervision or in accordance with procedures or written briefs
- Conducting routine machine operation and systems testing.
- Handing over machinery plant and equipment to the control and use of others in the workplace. For example a senior technician.

### ***Poultry technician***

A Poultry Technician is responsible for the management and control of a complex poultry farming site or operational agriculture (hatchery) unit, including responsibility for the performance and results of their site, raising animals with optimal welfare and consideration for their needs throughout the different stages of life, compliance at all times with hygiene, safety and bird welfare legislation - and customer standards which go beyond legislative compliance, maintenance of the facility, management of the personnel of the site and all other visitors to site.

The nature of the process and the need for optimum growth in an exacting time window requires specific expertise and skills in poultry husbandry relevant to their stage in the poultry supply chain - egg production, rearing, breeding, hatching or growing - together with knowledge of the other stages of the process. These are permanent stages in the process and not seasonal roles. For this reason this standard is formed of a core and options. To complete the standard a Poultry Technician should complete the core elements and one option. This requirement is further strengthened by the

nature of the work which normally means working without close supervision, meaning they must be entirely proficient and competent in the process.

### ***Poultry worker***

The key role for a poultry worker is to raise the animals with optimal welfare and consideration for their needs throughout the different stages of their life. This is practical work involving a combination of technology and manual labour. Being a poultry worker requires compassion, self-motivation and the ability to work both independently and as a team player. Poultry workers will be responsible for their own work, but will have close supervision. As animal welfare is a priority on farm, key to being a good poultry worker is understanding your limits and knowing when to ask for help. A poultry worker is responsible for supporting the bird development process, maintaining bird accommodation and preparing and monitoring the livestock production environment whether this is on a farm or in a hatchery. This will include ensuring they are looked after to meet health and welfare requirements as well as performance targets while maintaining effective biosecurity at site. This standard follows a 'core and options' approach. The core covers the generic requirements for looking after birds competently and the sector options provide more specific needs for different stages of the process, rearing, breeding and egg laying, hatchery and grow out farms. These are permanent stages in the process and not seasonal roles. To complete the standard a Poultry Worker should complete the core elements and one option.

### **REFERENCE**

<https://www.instituteforapprenticeships.org/apprenticeship-standards/>? Accessed: 13/01/23

## Annex H – Overview of T Levels

### What are they?

T Levels are new 2-year courses operating at Level 3 which are taken after GCSEs and are broadly equivalent in size to 3 A Levels. Launched in September 2020, these courses have been developed in collaboration with employers and education providers so that the content meets the needs of industry and prepares students for entry into skilled employment, an apprenticeship or related technical study through further or higher education.

T Levels offer students practical and knowledge-based learning at a school or college and on-the-job experience through an industry placement of at least 315 hours – approximately 45 days.

The courses are available at selected colleges, schools and other providers across England.

### Starting Dates & Providers

Clusters of T levels are being rolled out in stages over several years between 2021 and 2024.

With regard to the ***Agriculture, Land Management and Production*** T level this will be first offered in ***September 2023***.

Currently the following 'local' providers have identified they will be offering it:

- William Howard School, Brampton from 2024
- Myerscough College, Preston from 2023 [Check if offering in Penrith]
- City of Sunderland College, Sunderland from 2023
- Askham Bryan College, York from 2023
- Kendal College, Kendal from 2023

The current Government T level data base only identifies 14 providers nationally. Apart from the four listed above the rest are in southern England, the next closest being Leicestershire.

### How do they differ from other qualifications?

T Levels offer roughly 80% in class and 20% as work placement (min. 9 weeks), in contrast Apprenticeships are 80% on -the-job and 20% in class. Apprenticeships can also be at different academic levels to T Levels (ie L3,4,5,6 or 7). A-levels are solely classroom based and focus more on theoretical ideas. Finally, a few National Diplomas have been retained to cover areas not included in T levels or A levels such as sport science and performing arts.

Structure of delivery is decided by the provider.

### Agriculture, Land Management and Production Content

The full outline syllabus can be viewed here:

[https://www.instituteforapprenticeships.org/media/4688/final\\_almp\\_outline\\_content\\_nov2020.pdf](https://www.instituteforapprenticeships.org/media/4688/final_almp_outline_content_nov2020.pdf)

**PLEASE NOTE THIS HAS YET TO BE FULLY APPROVED** (as of 13/01/23)

T levels are divided into **core** and **occupational specialist content**

The **core** for Agriculture, Land Management and Production includes:

- sustainability, including environmental legislation, sustainable development, climate change and waste management principles
- the principles of biosecurity
- employment rights and responsibilities and progression opportunities within the sector
- ethical principles
- the supply chain and principles of stock management
- business organisations, enterprise skills and project management
- characteristics protected by equality legislation
- communication
- principles of customer care
- finance
- health and safety
- information and data

Students will also conduct an **employer-set project** which will include the following skills:

- Analysing, communicating, critical thinking, decision-making, investigating, working in a team.

The awarding provider will work with the employer to design the project and assessment criteria.

The **optional specialist** content allows students to select from:

- Crop production
- floristry
- habitat management (land and water) [p61]
- land-based engineering
- livestock production
- ornamental horticulture and landscaping
- tree and woodland management and maintenance

Further details by specialism are given below (Performance Outcomes):

**Crop Production** [p15]

- Establish crops in field and container-based systems for optimise yield and quality
- Manage crops in field and container-based systems to optimise yield and quality
- Harvest crops for commercial markets
- Maintain the areas surrounding the crop production environment

**Floristry** [p39]

- Design complex floral work to meet client requirements for special events
- Coordinate the care and condition of fresh floral materials and plants
- Assemble complex commercial flower, foliage and plant arrangements
- Create free standing timber-based structures decorated with complex floral designs

***Habitat Management (land & water)*** [p61]

- Establish habitats to meet management objectives
- Survey habitats to inform management decisions
- Manage habitats to meet management objectives
- Facilitate public interaction with habitats

***Land-Based Engineering*** [p91]

- Maintain complex land-based machinery and equipment
- Repair complex land-based machinery and equipment
- Diagnose complex land-based machinery and equipment faults
- Install land-based machinery and equipment

***Livestock Production*** [p109]

- Establish Conditions for animal breeding
- Rear livestock from birth to production standard
- Optimise livestock production
- Maintain areas surrounding the livestock production environment

***Ornamental and environmental horticulture and landscaping*** [p137]

- Establish ornamental and environmental horticultural areas
- Maintain Ornamental and environmental horticultural areas
- Install landscape features
- Manage existing designed landscapes

***Tree & Woodland Management and maintenance*** [p181]

- Grow trees and woodlands
- Undertake complex felling operations
- Maintain trees and woodland to meet prescribed objectives
- Manage tree populations and woodlands to meet objectives



## ANNEX I – Higher Education Land Based Programmes Provision offered in Cumbria or adjacent.

Award	Level	Provider	Validated by	Location
FdSc Agriculture	5	Myerscough	UClan	Myerscough
Foundation Certificate in Agriculture	4	Myerscough	UClan	Myerscough
BSc Agriculture	6	Myerscough	Uclan	Myerscough
BSc Agricultural Crop Science (top up)	6	Myerscough	UClan	Myerscough
BSc Agricultural Livestock Science (top up)	6	Myerscough	UClan	Myerscough
BSc Zoology	6	Myerscough	UClan	Myerscough
BSc Animal Conservation Science (top up)	6	Myerscough	UClan	Myerscough
MSc Animal Science	7	Myerscough	UClan	Myerscough
FdSc Animals & Horticulture Therapy	5	Myerscough	UClan	Myerscough
BSc Animals & Horticulture as Therapy (top up)	6	Myerscough	UClan	Myerscough
Foundation Certificate in Arboriculture	4	Myerscough	Uclan	Myerscough
FdSc Arboriculture & tree Management	5	Myerscough	UClan	Myerscough
BSc Arboriculture & Urban Forestry	6	Myerscough	UClan	Myerscough
MSc Arboriculture & Urban Forestry	7	Myerscough	UClan	Myerscough
Diploma in HE Farriery	5	Myerscough	UClan	Myerscough
BSc Farriery (Top up)	6	Myerscough	UClan	Myerscough
FdSc Agricultural Machinery Engineering	5	Myerscough	UClan	Myerscough
BSc Agricultural Machinery Engineering (top up)	6	Myerscough	Uclan	Myerscough
BA Landscape & Garden Design	6	Myerscough	UClan	Myerscough
BSc Landscape Architecture	6	Myerscough	UClan	Myerscough
Foundation Certificate Countryside Management	4	Myerscough	UClan	Myerscough
FdSc Ecology & Conservation Management	5	Myerscough	UClan	Myerscough
BSc Rural Resource Management	6	Myerscough	UClan	Myerscough
FdSc Equine Science & Management	5	Myerscough	UClan	Myerscough
BSc Equine Science	6	Myerscough	UClan	Myerscough
BA Equine Management	6	Myerscough	Uclan	Myerscough
MSc Equine Science	7	Myerscough	UClan	Myerscough
BA Golf Management	6	Myerscough	UClan	Myerscough
FdA Golf Management	5	Myerscough	UClan	Myerscough
BA Golf Management (top up)	6	Myerscough	UClan	Myerscough
MA Golf Management	7	Myerscough	UClan	Myerscough
Foundation Certificate Horticulture	4	Myerscough	UClan	Myerscough
FdSc Horticulture & Applied Plant Science	5	Myerscough	UClan	Myerscough
BSc Horticultural Science & Management (top up)	6	Myerscough	Uclan	Myerscough
BSc Landscape Architecture	6	Myerscough	UClan	Myerscough
BA Landscape and Garden Design	6	Myerscough	UClan	Myerscough
MSc Landscape Management	7	Myerscough	UClan	Myerscough
Foundation Certificate Sportsturf	4	Myerscough	UClan	Myerscough
FdSc Sportsturf Management	5	Myerscough	UClan	Myerscough
BSc Sportsturf Management	6	Myerscough	UClan	Myerscough
MSc Sustainable Sportsturf Management	7	Myerscough	UClan	Myerscough
FdSc Wildlife and conservation management	5	Craven	U. of Hull	Craven
BSc Animal Husbandry and Welfare	6	Craven	U. of Hull	Craven
FdSc British Animal Management and Wildlife Rehabilitation	5	Kendal	U. of Cumbria	Kendal
HNC Outdoor Adventure	4	Kendal	Edexcel/Pearson	Kendal
BSc Animal Conservation Science (with & without work placement year)	6	Uni. Of Cumbria		Ambleside

BSc Marine & Freshwater Conservation (with & without work placement year)	6	Uni. Of Cumbria	Ambleside
BSc Animal Conservation Science with Integrated Foundation year (L3)	6	Uni. Of Cumbria	Carlisle IYR, A'side L4 to 6
BSc Marine & Freshwater conservation with Integrated Foundation year (L3)	6	Uni. Of Cumbria	Carlisle IYR, A'side L4 to 6
BSc Woodland Ecology & Conservation (with & without work placement year)	6	Uni. Of Cumbria	Ambleside
BSc Woodland Ecology & Conservation with Integrated Foundation year (L3)	6	Uni. Of Cumbria	Carlisle IYR, A'side L4 to 6
FdSc Forestry	5	Uni. Of Cumbria	Ambleside
BSc Forestry Top Up	6	Uni. Of Cumbria	Ambleside
BSc Forest management with & without placement year	6	Uni. Of Cumbria	Ambleside
BSc Zoology with work placement year	6	Uni. Of Cumbria	Carlisle
MA Outdoor and Experiential learning	7	Uni. Of Cumbria	Ambleside
BSc Outdoor Adventure and environmental studies	6	Uni. Of Cumbria	Ambleside
BSc Outdoor Adventure and environmental studies with Integrated Foundation year (L3)	6	Uni. Of Cumbria	Carlisle IYR, A'side L4 to 6
BA Outdoor and Experiential Learning Top up	6	Uni. Of Cumbria	Ambleside
PgD Outdoor and Experiential learning	7	Uni. Of Cumbria	Ambleside
BA Outdoor Education (accelerated 2 year degree)	6	Uni. Of Cumbria	Ambleside
BA Outdoor Leadership	6	Uni. Of Cumbria	Ambleside
BA Outdoor Leadership with Integrated Foundation year (L3)	6	Uni. Of Cumbria	Carlisle IYR, A'side L4 to 6

## ANNEX J – CONTINUING PROFESSIONAL DEVELOPMENT COURSES DELIVERED IN AND CLOSE TO CUMBRIA

**The Bill Hogarth Memorial Apprenticeship Trust** – the [BHMT](#) recruits 2 or 3 apprentices a year and receive specialist training in all aspects of the coppice industry. Each apprentice receives a small bursary of £3000 pa. Successful apprentices are fully equipped at the end of three years to set up their own coppice business. The BHMT work in partnership with Small Woods to deliver the [National Coppice Apprenticeship Scheme](#). They also receive funding in perpetuity from the Ernest Cook Trust who fund one apprentice a year.

**Craven College** – the college offers short onsite CPD courses in: drystone walling, sheep husbandry, introduction to wildlife & biodiversity survey techniques (4 sessions). It also provides distance learning of the RHS L2 Principles of Horticulture.

**Cumbria Woodlands** - since the demise of Newton Rigg, Cumbria Woodlands have introduced '[Canopy learning](#)' which operates through an online learning portal. Current provision includes:

- Ancient woodland restoration versions for CPD and for HE Students
- Ground preparation for woodland creation
- Woods into management – introductory course

These courses are funded through the England Forestry Training Fund.

Cumbria woodlands also provide advice services and a directory of woodland services in Cumbria.

**Drystone Walling Association** – offer LANTRA accredited training courses for those seeking a career in drystone walling as well as the broader non-career market. [Levels 1, 2 and 3](#) up to Master Craftsman) are offered from their centre at Crooklands.

**Eco-Innovation North West** is a collaborative project between 6 universities in the NW of England, including University of Cumbria. It provides knowledge exchange services to support local SMEs to innovate and find low-carbon solutions. Themes include water, natural capital, food, and resource efficiency. Land-based industries are exempt. This is about to finish in March 2023.

**Farmers Network** – [Farming Ambition Programme](#) for 18 to 30 year olds designed to provide advice, support and potentially some grant funding for those interested in entering farming or farm-allied business ideas. It provides training in the basics of business planning, One-to-one support from an experienced farm business adviser; where appropriate, access to a small training grant; help preparing a loan application and ongoing support from a volunteer business mentor.

Facilitating engagement on [Natural Flood management](#) in Glenderamackin and Roe and Ive catchments in Cumbria funded since 2017 by Natural England's Countryside Stewardship Facilitation Fund. A farmer group facilitator organises meetings and training events on the theme of Natural Flood Management.

[Farm for the Future](#) supported by The Prince's Countryside Fund & Defra is a programme of farm business support via workshops and 1:1 advice to help you understand the changes to support payments, how to assess your business, look at opportunities for environmental payments and consider your options for the future.

**Fieldfare Associates** - a training company owned by SAC Consulting, which is a consulting arm of SRUC. [Fieldfare](#) deliver courses at the J36 Rural Auction Mart, Crooklands, Cumbria. Current

provision focuses on soil and nutrient management, for example nutrient management planning annual refresher for advisers accredited by [FACTS](#).

**Freshwater Biological Association** – a range of [technical short courses](#) covering the following topics: entomology for anglers L1, 2 and 3; sampling and identifying a range of freshwater invertebrates; River Invertebrate Predication and Classification System; Fish health and parasites; three day course in practical river restoration; macrophyte and algae ID.

**John Jones Training & Assessment Services** covers a wide range of land-based skills training and assessment accredited through [LANTRA](#) including:

- *Machine Operation & Maintenance* – Nineteen short 1 to 3 day courses covering mowers, tractor attachments, fork lifts, dumpers, hand held trimmers and brushcutters, welding
- *Forestry & Arboriculture* – Twelve 1 to 5 day courses for chainsaws, tree climbing, forestry first aid, woodchippers, grinders and pole saws, sectional felling
- *Driving skills* – Eight courses of 1 to 10 days in length for ATVs, tractors, trailers and excavators
- *Livestock* – Six courses of 1 to 4 days covering handling, dipping, vet meds., shearing, animal transport.
- *Environment & conservation* – Nine courses of 1 to 3 days covering brushcutters & trimmers, pesticides, vermin control, boundary maintenance (walls, fences and hedges), pollution control.
- *Health & Safety* – Eleven courses of 4 hours to 4 days in length covering manual handling, COSHH, first aid, working at height, cables, trailers, VOSA requirements, small hand tools, replacing equipment

A complete list is provided in Appendix S.

**LOWE Training** – is a forestry and land-based training company located in Settle, North Yorkshire. They offer a mix of 30 F2F and online training courses accredited by City & Guilds, where relevant, covering:

- Land-based machinery: brushcutters, hedgecutters, woodchippers, leaf blowers, stump grinders, ATVs, Argo cats & skid steer.
- Health & safety: Registration of Land Based Operatives (ROLO) and Ash Dieback risk assessment.
- Livestock and pest control: Safe use of sheep dip, Use of Phosphides, rats & mice poison,
- Chainsaw, felling and forestry: chainsaw maintenance, cross cutting & felling up to 380mm; fell and process trees over 380mm to 760mm; safe winching; powered pole pruner.
- Tree Climbing and rigging: tree climbing and aerial rescue; using a chainsaw with rope and harness, ecologists tree climbing and aerial rescue; aerial tree pruning; aerial rigging for trees.
- Safe use of pesticides: Handling & application of pesticides, knapsack sprayers, application near watercourses, mounted or trailed boom sprayer; weed wiper or wick type application; ecoplugs; stem injection equipment and minimal calibration equipment.

**National Hedgelaying Society** – provides career and leisure hedgelaying courses. LANTRA accredited programmes are offered at the levels [Bronze, Silver and Gold](#). Currently subsidized funding is available for those seeking a career in hedgelaying via the Princes Countryside Fund.

**NR Training Ltd** – with the demise of Newton Rigg College, [NR training Ltd](#) provide a range of short- and long-term courses, some of which are accredited others not. Themes covered include:

- *Horticulture* – non accredited Certificate & Diploma in Horticulture, Certificate in Garden Design, based at Lowther Castle. Designing with plants.
- *Advanced Dairy Management* – 12 day training course over six months recognised by Dairy Pro. Delivered at Penrith.
- *AMTRA* – programmes to certificate a person to become an *Suitably Qualified Person* as an animal medicine advisor. Base module available along with equine, companion and farm animals modules.
- *Pesticides* – NTPC City & Guilds Level 2
- *Nature Journaling* – offered at various locations across Cumbria, six sessions over six weeks.

**Roots to Nature** offer a two day [regenerative farming](#) course outside Penrith.

[Inspiring Eden farm](#) business support, funded by Eden District Council, provides 1:1 business advice, training vouchers, young farmer training bursaries, funding for carbon audits, workshops until the end of March regarding farm payment changes, energy efficiency workshop.

Foundation for Common Land [Hill Farming Training](#) – Farmer Network is the local facilitator for the Foundation for Common land’s hill farming training in Cumbria (started in 2011, designed by Mansfield, 2011). The aim is to give conservation professionals working with farmers a better understanding about how hill farms operate with farmers as the trainers.

**Rural Skills Hub** – this is a [joint initiative](#) between the DSWA and NHS supported by the Green Recovery Challenge Fund, offering a central point for advice, support, funded training, and signposting to further information on traditional boundaries.

The [GRCF](#) was led by the Defra family with the National Lottery Heritage Fund distributing and monitoring the money. Projects had to deliver against one of three themes:

- Nature conservation and restoration, including ecosystem restoration and species recovery;
- Nature-based solutions, particularly for climate change mitigation and adaptation; and
- Connecting people with nature.

**University of Cumbria** - Level 7 module Reflexive Practitioner (outdoor) at Ambleside as a stand-alone module of the University’s MA in Outdoor & Experiential Learning.

**Westmorland County Agricultural Society** – provide from their Crooklands base, a range of City & Guilds courses, many of which are run in partnership with JJTA. Qualifications generally include: Pesticides, Veterinary Medicines, Land-Based Machinery, Transportation of Livestock, Chainsaw and Forestry Machinery, Welding, First Aid for the farm, Driver CPC, trailers, ATV, telescopic handlers, pesticides, sheep dip, vermin control.

**Yorkshire Dales Millennium Trust** – operate a Rural Apprenticeship scheme which extends into Cumbria. Whilst working with an employer apprentices spend time at Craven College, working towards L2 Countryside Worker. Previous employers have included Cumbria Wildlife Trust, whilst there are active apprentices with the [Westmorland Dale Landscape Partnership](#).

## ANNEX K – John Jones Training & Assessment Services training courses

<p><b>Machinery Operations</b></p>	<ul style="list-style-type: none"> <li>• Safe Use &amp; Maintenance of All Tractor Mounted Attachments (from mowers, post knockers to balers etc.) – Duration depends on equipment selected.</li> <li>• Tractor / Machine Mounted Flail Arm / Hedge Cutter – 1-3 days</li> <li>• Tractor Maintenance – 2 days</li> <li>• Fork Lift Trucks – all types (including telescopic handlers) – 1-4 days</li> <li>• Equipment Safety Inspections – 1 day</li> <li>• Dumper Trucks Forward and Rear Tipping – 1-2 days</li> <li>• Forestry Machine Operator Training (forwarders, skidders, use of tractors for directional felling) – 1 day to 24 weeks</li> <li>• Safe Operation of Mobile Access Platforms – all types – Duration depending on numbers of machine types required.</li> <li>• Pedestrian Controlled Mowers – all types (rotary, flail etc.) – 1-3 days</li> <li>• Ride-on Mowers – all types – 1 day</li> <li>• Brushcutters, Strimmers and Clearing Saws – 1-2 days</li> <li>• Hand-Held Hedge Trimmers – 1 day</li> <li>• Small Engine Maintenance – 2 days</li> <li>• Land-Based Machinery Maintenance – 1-5 days</li> <li>• Oxy-Fuel Metal Cutting – 1-2 days</li> <li>• Arc Welding – 1-5 days</li> <li>• Oxy-Fuel Welding – 1-2 days</li> <li>• M.I.G. Welding – 1-5 days</li> <li>• Safe Mounting &amp; Use of Abrasive Wheels Machines – 1-2 Day</li> </ul>
<p><b>Forestry &amp; Arboriculture</b></p>	<ul style="list-style-type: none"> <li>• Chainsaw courses all classes from basic maintenance through to large trees (CS30 – CS33)</li> <li>• Dealing with Individual and Multi Wind-blown Trees (CS34, CS35)</li> <li>• Operating Chainsaws from a MEWP CS47– 1 day providing MEWP Certificate is held</li> <li>• Tree Climbing, Aerial Rescue and using chainsaws from a rope and harness (CS38, CS39)</li> <li>• Tree Identification</li> <li>• Woodchippers Use and Maintenance – 1-2 Days</li> <li>• Stump Grinders – 1 day</li> <li>• Pole Saws – 1 day</li> <li>• Sectional Felling</li> <li>• Forestry First Aid Training – 2 days</li> </ul>
<p><b>Driving skills</b></p>	<ul style="list-style-type: none"> <li>• ATVs – all types (Quads, multi-wheeled and tracked including loads and implements) – 1-2 days</li> <li>• Basic Trailer Handling on Road (includes legal aspects of towing) – 1 day</li> <li>• Basic Trailer Handling Off-Road – 1 day</li> <li>• 4 x 4 Professional Off-Road Driving – 1,2 or 3 days</li> <li>• Tractor Driving – all types (including track laying) 1-4 days</li> <li>• Tractor Driving on Slopes – 1-2 days</li> <li>• 180 Degree Excavator – all types – 1-10 days</li> <li>• 360 Excavator – all types – 1-10 days</li> </ul>
<p><b>Livestock</b></p>	<ul style="list-style-type: none"> <li>• Basic Stockmanship and Welfare – 2-4 days</li> <li>• Safe Use of Veterinary Medicines – 1-2 days</li> <li>• Sheep Dip – 1-2 days</li> <li>• Transport of Livestock by Road – Short and Long</li> <li>• Sheep Shearing Level 2 and Level 3</li> <li>• Safe Handling of Livestock</li> </ul>

<p><b>Conservation and Environment</b></p>	<ul style="list-style-type: none"> <li>• Pesticides Applications- PA1, PA2, PA6, and PA9 etc all applicator types covered. Each module-1 day per module</li> <li>• Vermin Control – Rabbits, Rats, Mice, Moles Grey Squirrels – 1-2 days</li> <li>• Boundary Maintenance – Drystone Walling, Fencing, Hedge Laying – 1-5 days per subject</li> <li>• Pollution – Fertiliser Applications, FYM, Slurry and other agricultural /land based waste management.- 2 days</li> <li>• Brushcutters, Strimmers and Clearing Saws – 1-2 days</li> </ul>
<p><b>Health &amp; Safety</b></p>	<ul style="list-style-type: none"> <li>• Manual Handling Operator – 1 day</li> <li>• Manual Handling – Risk Assessment – 1 day</li> <li>• COSHH Control of Substances Hazardous to Health-Awareness and Risk Assessment – 1 day</li> <li>• Working at Heights</li> <li>• First Aid</li> <li>• Selecting and Purchasing new or Replacement Equipment inc. PUWER, LOLER, Supply of Goods Safety Regs etc. – 1 day</li> <li>• Cable Avoidance Tool (CAT ) – 4 hours</li> <li>• Use and Care of Small Hand Tools – 1 day</li> <li>• Transport – Managing Transport in the Work Place.</li> <li>• Safety in the Coupling of Semi and Drawbar Trailers with HGVs (Shunting Course)</li> <li>• Vehicle Inspections, Policies and Management (meeting VOSA requirements)</li> </ul>

## Annex L – Forestry Training Fund: List of Eligible Training Courses (<https://forestrytrainingfund.co.uk/> Accessed: 09/03/23)



### Forestry Training Fund List of Eligible Training Courses

The table below provides a list of the types of training courses supported via the Forestry Training Fund.

<b>Forestry and Woodland Courses</b>	Ancient Woodland Restoration Training
	Forest Management Course including Generic FSC® Training
	Forest Works Manager
	Forestry Foundations BAG109
	Ground Preparation For Woodland Creation
	Introduction to Woodland Management
	Planting and Establishing Woodlands
	Site Species Selection course
	Marketing and Selling Timber
<b>Chainsaw Courses</b>	Assisted Fell Operations
	Chainsaw Basic Felling Techniques up to 200mm
	Chainsaw Maintenance
	Chainsaw Maintenance and Cross Cutting Level 2
	Chainsaw Maintenance and Cross-cutting
	Chainsaw Maintenance and Cross-cutting Refresher
	Chainsaw Maintenance, Cross-cutting and Basic Felling up to 200mm
	Chainsaw Maintenance, Cross-cutting, Felling and Processing Trees up to 380mm
	Chainsaw Maintenance, Cross-cutting, Felling and Processing Trees up to 380mm Refresher
	Cross-cut Timber Using a Chainsaw
	Felling and Processing Trees over 380mm
	Felling and Processing Trees over 380mm Level 3
	Felling and Processing Trees over 380mm Refresher
	Felling and Processing Trees up to 380mm Level 2
	Ground Based Chainsaw Refresher - Sever Uprooted or Windblown Trees using a Chainsaw
	Ground Based Chainsaw Refresher - Sever Uprooted or Windblown Trees using a Chainsaw +F
	Ground Based Chainsaw Refresher (Coillte)
	Level 3 award in Felling Large Trees & Crown Breakdown
	Safe Use and Application of Fertiliser and Manure
	Sever Uprooted or Windblown Trees using a Chainsaw (Individual)
	Sever Uprooted or Windblown Trees using a Chainsaw (Multiple)
	Use of a Chainsaw from a Mobile Elevated Work Platform
	Use of a Chainsaw from a Mobile Elevated Work Platform Refresher
Use of Chainsaw from a MEWP	
City & Guilds NPTC Assessment	
<b>Deer Management Courses</b>	Deer Stalking Certificate Level 1 (DSC1)
	Deer Stalking Certificate Level 2 (DSC2)
	Deer Management Certificate (DMC)





<b>Plant &amp; Large Machinery Courses</b>	Abrasive Wheels
	All Terrain Vehicle - Sit-Astride
	All Terrain Vehicle
	Combi Tractor Mower Refresher
	FMO Skidder Training
	Forestry Forwarder Training
	Forestry Harvester Training
	Forklift/Telehandler Training
	General Winching Theory and Practice
	Groundcare Machinery Maintenance - Mower Set-up
	Hand Held Hedge Trimmer
	MEWP – Mobile Elevated Work Platform
	Pedestrian Mowers
	Ride On Mowers
	Stumpgrinders
	Stumpgrinders Refresher
Tractor Driving	
Tractor Driving on Slopes	
Woodchippers	
Woodchippers Refresher	
<b>Pest Management and Control Courses</b>	Grey Squirrel Control
	Grey Squirrel Management Training
	Shooting Grey Squirrels for Red Squirrel Conservation
	Rabbit and Mole Control Trapping Techniques
	Vertebrate Pest Control – Moles & Rabbits
Vertebrate Pest Control – Squirrels and Avian Pests	
<b>Fencing and Hedge Laying Courses</b>	Coppicing and/or Hedgelaying
	Fencing and Gate Installation
	Fencing and Gate Installation - Combined
	Fencing and Gate Installation - Foundation
	Fencing and Gate Installation - Gates and Stiles
	Fencing and Gate Installation - Post and Panel
	Fencing and Gate Installation - Post and Rail
	Fencing and Gate Installation - Post and Strained Wire
	Firewood Processors
	Firewood Processors Refresher
	Ignite Woodfuel Quality Standards
Introduction to Hedge laying	
<b>Pesticide Courses</b>	Level 2 Award in the Safe Application of Pesticide using Hand-held Equipment
	Level 2 Award in the Safe Use of Pesticides
	Safe Use of Pesticides
	PA1 safe Handling and Application of Pesticides
	Pa6a Handheld Applicator
	PA6aw To or Near Water
PA6mc Minimal Calibration (handheld weedwiper / stick)	
<b>Instructor Courses</b>	Instructional Techniques – Lantra certificated
	First Aid at Work +F

## Annex M - Level 5 Principles of Leadership & Management in Land Based Settings: Mandatory & optional modules

Unit Title	M/O	Unit Level	GLH	Credits
Principles of management and leadership	M	5	60	10
Management of change	O	5	30	5
Management activities	O	5	60	10
Developing successful business teams	O	5	30	5
Personal development	O	5	30	5
Recruitment and selection	O	5	30	5
Financial awareness for managers	O	5	30	5
Marketing principles for managers	O	5	30	5
Management decision making	O	5	60	10
Leadership in your organisation	O	5	30	5
Managing staff performance	O	5	30	5
Customer relationship management	O	5	30	5
Managing projects	O	5	60	10
Managing budgets	O	5	30	5
Quality management in an organisation	O	6	30	5
Principles of strategic management	O	6	30	5
Managing innovation in an organisation	O	6	30	5
Managing communications at work	O	4	30	5

And for Fencing 'Black Card':

Unit Title	M/O	Unit Level	GLH	Credits
Principles of management and leadership	M	5	60	10
Management activities	M*	5	60	10
Management decision making	M*	5	60	10
Managing projects	M*	5	60	10

\*These are from the optional group but are a mandatory requirement for the Black Card.

## Annex N – SRUC-Barony Peatlands Restoration

### Short Course Content 2022/23

(this is a new course and content is subject to change as it evolves)

Contact details: James Banks, SRUC [james.banks@sruc.ac.uk](mailto:james.banks@sruc.ac.uk)

#### Block One: Understanding and Assessing Peatlands Learning Outcomes

1. Describe the key features of peatland ecosystems- including:
  - a. Most common species
  - b. Topographical characteristics
  - c. Hydrological features
  - d. Main erosional features ie haggs, pans, drainage channels and peat pipes
2. Distinguish between blanket bogs and raised bogs and fen ecosystems
3. Explain the global, regional and local importance of peatlands from the perspective of biodiversity, atmospheric, hydrological and human.
4. Explain the hazards inherent in field work in Peatlands and evaluate and control risks- including personal safety, weather, terrain, remote locations.
5. Map, plan and carry out field surveys, including:
  - a. Peat depth
  - b. Vegetation
  - c. Herbivore Impact Assessments
  - d. Use of GIS
6. Explain the main threats to the integrity of peatland systems and their ability to support biodiversity, store carbon and act as hydrological buffers.
7. Be aware of the role of the IUCN Peatland Code and the Scottish Government's Peatland Action programme

#### Block Two: Restoring Peatlands Learning Outcomes

1. Through surveying, describe the condition of a peatland.
2. Recognise the assemblage of species that indicate healthy and less healthy peatland ecosystems.
3. Recognise previous restoration work and evaluate its effectiveness.
4. Explain the feasibility of peatland restoration for a specific site.
5. Describe appropriate restoration techniques for damaged peatlands.
6. Write a plan for a peatland restoration project to include:
  - a. Specifications of restoration methods
  - b. Site limitations
  - c. Hazard identification (and CDM)
  - d. Access issues