

**Professional forestry education at the  
National School of Forestry, University of Cumbria:  
submission to the strategic review (July 2013)**

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# Professional forestry education at the National School of Forestry, University of Cumbria: submission to the strategic review (July 2013)<sup>1</sup>

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*This discussion paper has been prepared in response to a request for submissions to a review of the role and purpose of the National School of Forestry, University of Cumbria, undertaken between May and July 2013. The review is led by Chris Starr OBE, who was asked by the university to suggest: (1) how the National School of Forestry might make best use of a new campus in a new location (following a move in September 2014 from Newton Rigg to Ambleside, Cumbria); (2) how the school can best meet the future needs of the forestry sector. The final report will be submitted to the University of Cumbria by the end of July 2013.*

## Introduction

The National School of Forestry (NSF), University of Cumbria has been based at Newton Rigg, Cumbria for nearly 50 years. Over that time, the school has earned an excellent reputation for training professional foresters and forest conservationists. In September 2014 the school will relocate to the University's Ambleside Campus. This presents an opportunity to re-launch the National School of Forestry, with new goals and priorities, and with new synergies within the academic structure at the University of Cumbria. However, there are operational constraints and challenges that must be addressed if the school is to achieve its potential and re-assert itself as a leading provider of professional forestry education, with a national and international reputation for the quality of its work.

This paper includes a series of observations and proposals, many aspirational, aimed at contributing to the current debate within and outside the university regarding the direction of the National School of Forestry. These proposals are not costed, as the remit at the present time is to gather ideas and identify opportunities for the way forward. The comments in this *thought-piece* are aimed at addressing the needs of graduates, employers and the wider forestry community.

The starting point for this submission is an assumption that the purpose and role of the National School of Forestry is to train professional foresters for successful careers, and nurture *life-long learning*, in the forestry and forest conservation sector.

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<sup>1</sup> Discussion paper prepared in response to a call for stakeholder input to a review led by Chris Starr, OBE, and due to report by the end of July 2013. The views expressed in this discussion paper are those of the author and do not represent or endorse the position of any other organisation.

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## **PART A – Curriculum and Provision**

### **1. New School, New Vision**

The move to the Ambleside Campus will take place in September 2014. However, there will need to be investment by the university to ensure a successful re-branding and re-launch of the forestry school at this location. It is important to remember that the industry/sector recognises “*Newton Rigg*” more than “*National School of Forestry*”, and that a prestigious name may not be enough to secure future success.

The University of Cumbria has demonstrated that it will invest in new programmes and infrastructure, where a strong case is made and where there is recognised demand from students and employers. A good example is the policing academy.

In this current review, a clear goal should be to make the case for new investment and commitments to professional forestry education at the University of Cumbria. The status quo is not an option; there must be a major gesture of support. However, it is essential there be agreed benchmarks and targets for the School, to ensure there is not an unfair draw on the resources of other units across the university.

Bold and innovative gestures and ideas are needed. Creativity is essential; both at the core of the programme and during delivery.

### **2. Undergraduate Curriculum – preparing work-ready graduates**

A unique feature of NSF has always been its focus on high quality courses that are strongly linked to employer requirements. There are excellent job prospects across the forestry sector for well-qualified graduates with a record of practical experience. The core teaching and learning provision at NSF, into the future, should continue to be centred on the development of *work-ready* graduates.

To prepare work-ready graduates, there needs to be a strong, up to date curriculum that meets the needs of the sector (Leslie et al. 2006). This should emphasise the basic “toolkit” of technical and scientific knowledge and skills expected of a graduate forester (Zundel and Needham 1996). Crucially, the curriculum should also consider softer “citizenship” skills, such as communication, interpersonal relationships, an understanding of political processes, and engagement with wider environmental issues and the community.

To remain vital and relevant, professional education must continuously evolve in response to emerging priorities (Leslie et al. 2006). It also needs to strive for greater inclusion, reaching out to under-represented groups such as women candidates<sup>3</sup>. With the move to Ambleside, there is an opportunity to reach out and seek views of employers across the sector, which should inform the re-validation of courses.

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<sup>3</sup> Leslie et al. (2006) noted that professional forestry education was dominated by male candidates, with one of the lowest proportions of women candidates among the science and technical professions.

Revision and updating of the curriculum can be supported by re-launching a *NSF Advisory Committee*, and through links with professional and regulatory bodies. Engaging with expert practitioners and the sector may be a valuable way of refreshing and enriching the curriculum, as shown by Zundel and Needham (1996).

### **3. Postgraduate Provision**

NSF has established expertise in postgraduate teaching and research. Taught Masters, Research Masters and PhD courses have been validated and successfully delivered, both in full-time and distance-learning modes. Nevertheless, future provision of postgraduate programmes can only be sustained where adequate resources and infrastructure are put in place.

There is a trend across higher education towards more people pursuing postgraduate qualifications, especially taught Masters degrees. These have proved popular in both full-time and distance learning (DL) modes. Evidence from Bangor University (the most significant competitor in the UK) shows that where courses are well-resourced, with dedicated specialist staff, there is significant demand and a global market for DL degrees in forestry.

For many foresters, DL courses enable academic and professional development without the cost of taking time away from a career and a move to attend university. To more fully achieve recognition as the “National School”, it is essential to look again at postgraduate provision and opportunities to reach potential students throughout the country, and beyond.

There may be some significant opportunities that have not yet been explored. For example, at the present time there is limited provision for forestry education in the southern part of England. However, there is a very large pool of potential candidates in this region, and a wide range of career options. Devising courses that tap into this potential demand could be one route forward. Traditionally, most forestry courses in the UK have concentrated on *upland forestry*; there may now be significant strategic advantage in a course that more explicitly deals with *lowland forestry* issues.

### **4. Progressive New Programmes – a professional degree for the 21<sup>st</sup> Century**

Another trend in UK science education is the combined undergraduate/postgraduate degrees. These typically take 4 years to complete. Such degrees are now common in a range of disciplines, including Maths (MMath), Physics (MPhys) and Engineering (MEng). Those candidates performing well in their first two years of undergraduate study are admitted directly to the professional Masters degree.

A progressive and market-leading opportunity might be to develop a 4-year professional Master of Forestry (MF or MFor) programme. This could set a new standard, and provide graduates with an immediate advantage in the workplace. It might also serve to raise the professional standing of forestry.

The MF degree has wide international recognition, with most US and Canadian forestry schools offering a 1-2 year MF above the BSc. However, the proposal here is for an integrated programme, as mentioned above for other science disciplines.

The degree should be highly vocational and linked to real-world issues and challenges, such as is the case with the MF degree offered at Yale University, and others in the US/Canada. There may be opportunities to partner with other institutions, especially within the EU and/or North America, to develop a rich learning experience and array of course offerings/specialisms. The programme would provide an opportunity for students to develop high-level skills in critical reasoning, problem solving and evidence-based practice.

## **5. Integrated Curriculum and Delivery**

Forestry needs to be more broadly integrated with environmental and natural resources management. This is a general observation, related to curriculum planning, that applies to all disciplines allied to land and natural resources management. Also there should be strong links to rural enterprise and recreation – as many foresters now derive a larger part of income from recreational use of forests than timber.

## **6. Outreach and Continuing Professional Development**

There is an increasing demand, and market, for continuing professional development (CPD). Life-long learning is now a formal requirement of practicing professional foresters in the UK, and in many other jurisdictions. As part of the longer-term development of the NSF profile, there should be greater emphasis on outreach and professional education.

To achieve this will require more links to the sector, either by representation on boards and committees, cross-badging and partnering on conferences and workshops, and more CPD offerings.

Links to the key professional organisations should be strengthened, including the Institute of Chartered Foresters (ICF) and the Chartered Institute of Ecology and Environmental Management (CIEEM), in particular.

## **7. The Place for Research**

Research should be recognised as being important but secondary to the professional education drivers of the National School of Forestry. Research can be addressed in a longer-term strategy, once student numbers and courses are stabilised after the re-launch at Ambleside, and re-validation of courses.

The model for research should be that of other professional schools, or even some of the liberal arts institutions in the US, where teaching is the primary objective. Research continues where it supports the culture and training needs of students.

## **PART B – Leadership and Staffing**

### **8. Leadership**

A key priority is academic leadership. The university should aim to appoint a *Professor of Sustainable Forest Management*. This would be the first appointment in the UK with this (or similar) title.

The personal specifications for this role should include someone who is industry-credible, industry-connected and who will serve as a leader in professional forestry education at the National level, ultimately securing a national profile for the school.

Several other institutions have made professorial appointments in “*Forest Science*”; these roles are often less directly connected to professional forestry practice than is proposed in this submission.

One way forward to secure a Professor of Sustainable Forest Management might be to reach out to the forestry and forest conservation sector with the aim of creating an endowment fund, but this would perhaps be a longer term objective, and partly a function of the university’s own ability to raise funds of this sort.

### **9. Core Teaching Staff**

Currently, NSF operates with a core team of 4-5 teaching staff plus a small number of part-time Hourly Paid Lecturers, who are dedicated to topics related to professional practice, and with industry as well as academic work records.

This allotment, at the present time, provides a “stretched” teaching programme, but is insufficient to undertake many of the wider activities necessary to enhance the recognition and status of the school. It is inadequate for developing new and expanded course offerings.

The school should work towards a core team of 8 full-time lecturing staff in forestry and forest conservation to successfully deliver the various specialist elements of a forestry curriculum. A role remains for part-time lecturers where they can bring professional experience to enrich the learning experience for students.

### **10. Business Development**

A key appointment along with a chair in sustainable forest management will be a business development manager. This individual would have strong skills in marketing, networking, fundraising and organisation of projects in support of the school.

Currently, NSF is limited in its ability to tap into European Union and other funding streams due to a lack of capacity and resources. With the help of a business development manager, this funding should be more accessible.

There should be measurable targets for performance in terms of financial goals and projects for NSF that can be coordinated by this individual.

## **PART C – Facilities and Resources**

### **11. Facilities and Resources**

Certain facilities are required to teach a modern forestry curriculum. These include dedicated labs for management planning, biology teaching and research. Provision for these facilities should be included in plans to upgrade the Ambleside Campus.

Also, there should be an established network of *University Teaching Forests*<sup>4</sup> in close proximity to NSF, such as at Thirlmere, Whinlatter, Grizedale. To achieve this will require partnerships with a range of public and private sector forest owners.

### **Concluding Points: Towards the *Destination of Choice* for Professional Forestry Education**

Overall, the National School of Forestry is one of the few programme areas at the University of Cumbria with the potential, in a short period of time, to establish a national and international reputation for its courses and wider work.

The school is currently under-resourced and is unable to realise its potential. A lot of good work is going on currently despite limited resources. The “do nothing scenario” is not an option. If a new vision cannot be delivered, NSF will continue to struggle, and will face increasing pressure from competitor institutions.

Creativity, boldness and investment are the keys to moving forward. A “pitch” needs to be made to the university to state that NSF is one of the major “assets” of the institution, and a subject area that needs to be nurtured if the university aims to establish a national or international reputation in forest conservation and natural resources management. In return, the school should agree to rigorous performance and financial targets.

The ultimate goal of is to position the National School of Forestry, University of Cumbria as the *destination of choice* for professional forestry education, and continuing professional development in forestry.

### **Literature Cited**

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<sup>4</sup> The term “*University Teaching Forest*” is proposed with deliberate reference to the term “*University Teaching Hospital*”. It is noteworthy that many professional courses are highly vocational, and require considerable time in work-based environments, as is the case, for example, with most medical and health-related professions.



## Silviculture Research International

*“Inspiring advances in the science and practice of sustainable forestry”*

**Silviculture Research International Ltd** is a science-led forestry practice dedicated to the advancement of sustainable forest management and the conservation of natural resources. We are multi-disciplinary and work closely with a range of stakeholders across the public, private and NGO sectors, as well as in the community. We undertake a wide range of projects in pure and applied science, evidence-based practice and learning. Our current portfolio includes programmes in silviculture, continuous cover forestry, adaptation of forests to climate change, sustainable forest management and human dimensions in forested landscapes.

### Author Information

**Edward (Ted) Wilson** is Director of Silviculture Research International. As a silviculturist, he has extensive experience of sustainable forestry throughout temperate and boreal regions of Europe and North America. He has worked in a variety of roles across the public, private and voluntary sectors, including appointments at the Faculty of Forestry, University of Toronto, Canada, and the National School of Forestry, Newton Rigg, England. Ted holds a BScF (Forest Science) from the Faculty of Forestry, University of New Brunswick, a BMedSci (Clinical Science) from the Medical School, University of Sheffield, and is a Professional Biologist (MSB). Current senior appointments include: Member, Forest and Woodland Advisory Committee for Northwest England, Forestry Commission; Governor, Cumbria Partnership NHS Foundation Trust; Member, International Editorial Board, Arboricultural Journal: International Journal of Urban Forestry. He is a recipient of the Gold Medal of the Canadian Institute of Forestry, and the James Prize of the Royal Forestry Society.

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