These are interesting times for the practice of private, commercial forestry in the USA. Like our predecessors, we face ever-present economic hurdles. The science of modern forestry has taught us to deal with these hurdles in the context of biological sustainability. There are regulatory regimes in place to ensure outcomes that are valued locally. While we manage for sustained yield of the timber crop, we also pay attention to other values, such as water quality, through the control of our use of forest chemicals and by the design, construction and maintenance of our road systems. For the most part challenges at the stand level are being met.

In the USA, controversy has shifted to the regional level. The industry focus has shifted accordingly. We are now concerned with values managed across watersheds such as the protection of threatened and endangered species through habitat management. We may still be struggling, but our current forest policy framework is forcing the industry to address US society’s concerns for the forest landscape.

While we struggle comfortably with our regional trade-offs, the new international challenge of postmodern forestry looms over the horizon. Instead of just economic sustainability and biological concerns, we are now being asked to address the problems of managing a global commons. Is our forestry socially sustainable? Have we appropriately addressed the impacts of our activities and policies across national boundaries? Have we recognized the need for carbon sequestration?

It is not clear to me that our current institutions and policy framework are ready to meet complex international challenges like these. Society is going to expect different outcomes from private forest management than those that our policy frameworks were designed to deliver. There have been similar discontinuities in the past. What can we learn from them? I believe that it will be instructive to review forest policy at the turn of the last century. What does the shift from the hunter–gatherer era to sustained-yield forestry tell us about the pending shift to postmodern forestry?

I will start by explaining my perspective as an ex-manager of a Canadian industrial forest. Members of my family have been involved in the production of private forest goods in the USA for 150 years. I have always been fascinated by their history and the evolution of their enterprises. But it was only when I moved to Canada and assumed responsibility for our forest management on crown land that I began to focus my thoughts on the public policy framework that had directed Weyerhaeuser’s private land management. In Canada I regularly found myself suggesting to our forestland managers that they should act more like they owned the forest. They should be concerned about its future productivity. At the same time, when I visited the USA I often found myself reflecting that we needed to act more like we were tenants on the land rather than owners. Our private forests
were sources of important public goods. We could not leave their provision to chance. Other stakeholders were beginning to get very interested in the certification of our production of those goods. We had to pay attention.

I had several opportunities to discuss this interesting dichotomy with a Minister of Forests of a Canadian province. As a Minister he was both our landlord and our regulator. I definitely paid attention to our conversations. The issues of the day gave us ample opportunity to reflect on the differences between Canadian public forest management and the US policy framework. The ongoing softwood lumber disagreement between Canada and the USA forced me to reflect on the comparative histories of development of industrial forestry in the two countries. And the controversy surrounding environmental regulations in western Canadian forestry focused my thinking on the provision of public goods as a by-product of industrial forestry.

The Minister was convinced of the superiority of the western Canadian approach. He saw his regulatory power and the public ownership of the forestland as essential to maintaining the provision of public goods. The US approach was hopelessly inflexible. Fragmented land ownership and private property rights made it very difficult to deal with unanticipated, new challenges, such as the spotted owl. With changes in society and with changing scientific knowledge about the forest, there would always be new public expectations about forest management. Under the tenure system, the powers of the Minister could be used to shape the behaviour of private forest products firms. His job was to put the right package of incentives and regulations in front of the profit-maximizing firms to get them to perform in the public interest.

My American point of view made me sceptical. Even if the Minister was able to sense the changing expectations and clever enough to get the balance of incentives and regulations right, I doubted that the administrative structure could keep up. But as a visitor to the country, my job was to play by the Minister’s rules. We will have to leave it to the historians to see whether my scepticism was misplaced.

On the other hand, the Minister was certainly correct about the changing needs and expectations of society. We have had difficulty adapting. In the USA we are challenged by our historical land-use patterns. As our attention has shifted from the private harvest value of the stand to the management of a watershed or a landscape, we are hampered by fragmented ownership. The ownership patterns can lead to perverse results. For example, in response to the listing of the spotted owl, circles were established to protect nesting sites. Inside the outer circle, only a certain percentage of forest cover was allowed to be removed. This gave each individual landowner the incentive to get their timber cut first. In the Minister’s ideal world this sort of thing should not happen.

So encounters with the Minister have stimulated my thinking. In our market-based system, how do we get private actors to manage for wildlife habitat? How do we lead a landowner to manage habitat for an endangered species, if the end result of attracting the endangered creature is losing the freedom to manage the stand?

There are no bad guys in my story. Just soulless private firms. Perhaps you should take what I say with a healthy dose of scepticism. I am going to recount the story of Frederick Weyerhaeuser and his successors from the point of view of my family. I want to examine how policy has changed the provision of public goods from the forest that Frederick and his partners and their successors managed.

I will try to think of Frederick as the sort of neutral moral actor that the Minister has imagined. This might be a little bit difficult for me, because in our family we think of Frederick as a shy family man, not a mysterious octopus or robber baron as the contemporary press imagined. We see a self-made German immigrant embarrassed about his poor ability to speak English, but rising to match his mythical contemporary, Paul Bunyan, in the provision of public good. Instead of Bunyan’s axe, Frederick had his integrity and his ability to win the trust of his partners. Frederick and his partners cut a swathe across North America. These days, commentators picture the devastation in their path. But in my family, we just remember that they were doing the good work of Paul Bunyan, opening our country up for the settlers that followed them.

You can see that I might not be the most unbiased of observers. But I have to ask you not to apply today’s sustainability standards to Frederick and his peers’ logging practices. The devastation in his wake was not the result of policy failures. The economy of the day needed the lumber that Frederick and his peers produced. But the policy makers got what they needed also. The forest and the streams of the Mid-west were seen as being so
abundant that they did not need management. In fact, what was needed was the opening up of the land for settlement. The policy makers of the day manipulated the neutral moral actors to achieve that public good. Like Paul Bunyan, Frederick and his partners provided this land clearing and development service as they harvested the timber for private gain.

Even at the turn of the 20th century, when logging practices were beginning to be questioned, the Weyerhaeuser company took its provision of this public service very seriously. For example, George S. Long, the company’s first general manager, insisted on selling the company’s logged lands directly to settlers; that way he could be sure that brokers weren’t confusing property lines or inflating prices. He only sold the land when he could verify that the settlers were well informed and prepared for the hardships of farming. He took on this responsibility ‘not because we think it’s the most economic thing to do, but because we think it is the right thing to do’.

Mid 19th-century lumbermen had learned that settlement following the pine harvest in the Lake States was not easy. The soil and climate were not well suited to farming. The pine stumps did not rot. So unlike the US experience in New England, development and settlement in the Mid west was not automatic. Policy makers needed to find further incentives for western development.

Capital was needed to develop the railroads of the West. Railroads needed customers and suppliers along their routes. The Congressional response was a series of Railroad Acts in the early 1860s granting alternate sections on each side of the railroad for 10, 20 or 40 miles to the railroad companies. The subsequent sale and harvesting of these lands built the lumber businesses of the West, provided the capital for the railroads and cleared the land for settlement.

Frederick, his Lake states peers and their southern competitors responded to the stimuli of the day. Between 1850 and 1900, US softwood lumber production increased an order of magnitude to a level comparable to today. By 1900, timber was no longer perceived to be inexhaustible in North America. Frederick and his partners branched out of their Mid west lumber businesses and invested in the Weyerhaeuser Timber Company, reportedly for the benefit of their grandchildren.

Public policy makers also perceived the inflection point. Cleared land was no longer the essential public good. Policy makers began to worry about the conservation of natural resources. The legal framework would have to change. A dramatic illustration of the outcome of this shift is the percentage of public timberland ownership in different regions of North America, as a function of when the regions developed. Railroads opened up the timber industry in the southern states before conservation was a concern. Today only 10% of southern timberland is publicly owned. In the Pacific Northwest, 55% of the timberland is publicly owned. The regulatory regime in western Canada was partly a response to the excesses of exploitation in the US West. Today over 90% of British Columbia’s timberland is publicly owned.

The sustained yield from private forest management also became a public policy concern. The legal framework of the day did not give regulators many levers with which to influence private forest practices. President Theodore Roosevelt mastered the use of the ‘bully pulpit’ to influence public opinion. His Forest Service Chief, Gifford Pinchot, arranged the American Forest Congress in 1905 to consider the forestry problems of the USA. Pinchot invited Frederick to speak about the industry. Frederick declined because of his health. (In my family, we believe it was really because of his shyness and his embarrassment about his command of the English language.)

When Frederick declined to speak, Pinchot suggested to Frederick’s youngest son, F.E. Weyerhaeuser, that he step in and read a speech on his father’s behalf. In his enthusiasm, F.E. not only agreed to do so, he also helped to promote the event by encouraging other important timber owners to attend with him. Pinchot and F.E. believed that the discovery of mutual interest by the federal officials and the industry leaders would lead to better understanding and opportunities for future cooperation. The night before the conference, F.E. stayed with Pinchot. That evening Pinchot read F.E. the draft of Roosevelt’s opening address. F.E. was amazed at its fairness to the lumber industry. Later he would recall that he was very much pleased. Unfortunately the pleasure did not last. The next day when Roosevelt delivered his remarks he departed radically from the prepared text. He attacked the lumbermen as ‘despoilers of the national heritage’. He shook his fist at them violently to reinforce his points.

F.E. felt betrayed. Nevertheless, he delivered his speech. He suggested that changes in the
industry had prepared lumbermen to seriously consider ‘any proposition which may be made by those who have the conservative use of the forests at heart’. He noted, ‘Everywhere throughout our timber regions Nature is struggling to renew her growth, and mere casual observation forces upon us the fact that the forests will reproduce themselves, if given a fair chance. But there are three great obstacles which must be reckoned with in the profitable reproduction of timber: time, fire and taxes’.

The American Forest Congress is remembered as an important milestone in the conservation movement. F.E. understandably had a different point of view. He thought that the Congress had set back the cause of sustained yield from private forests by at least a decade. The public need was clearly stated. The impediments to progress were understood. Trust was the missing element.

Weyerhaeuser leaders worked on the impediments for the next three decades. Progress was made more easily on cooperative fire control. The story is well known, so I will touch on it only briefly. Fire control clearly had to be a collective effort. As Frederick once observed, it was useless to provide ‘clean ground’ on your property if the adjacent tract remained a litter bed of tinder for any spark to set ablaze. To control fire, new institutions had to be created and new practices had to be perfected. However, the interests of the parties were essentially aligned. When stable settlements dominated the frontier, rural residents brought an end to frontier fire practices. In the forests, fire codes and systematic fire protection gained the upper hand. After 1905 the US Forest Service became the central institution in firefighting. Gradually fire was removed as an impediment to conservation and sustained yield.

Taxes and time proved to be more challenging. In the case of taxes, the interests of the various parties were not well aligned. Property taxes were a major source of revenue for local governments. Residents such as farmers did not mind seeing that burden fall disproportionately on forestland owners. But an annual tax based on the value of land and timber would encourage landowners to cut their timber before the taxman got all the value. It was impossible to justify holding cut-over land for a sustained private yield, if the taxes were higher than the purchase price of adjacent timber.

The first generation of Weyerhaeuser management did not make much progress in removing the impediment of taxes on the provision of sustained yield as a public good. George Long and F.E. spent their careers working on the challenge. Over the decades, federal studies examined the problem, but local reform proved difficult. Long tried many clever tactics to build understanding and support. In 1921 he lobbied for a bill in Washington State to authorize a bond issue to purchase and replant private cut-over land to demonstrate how to regrow a forest.

When the measure failed he offered to give the state or the federal government half of all the returns of a 50-year rotation if they would be responsible for the taxes. Each year for 20 years, Weyerhaeuser would provide 30,000 acres of cut-over land for the scheme. No one took him up on the idea of a 200,000-acre demonstration forest. The next year he was even more direct. Weyerhaeuser made an outright gift of 3000 acres to the state for a reforestation experiment.

George Long, one of the neutral moral actors of my story, may have been associated with robber barons, but he was quite eloquent about the need to lobby for a public policy framework to bring out the best efforts of the private forester.

First, of course, that the state should cooperate very heartily and earnestly with the federal authorities in this movement.

Second, that the state itself, by liberal appropriations should provide funds to protect the standing timber as well as the young growth timber from forest fire destruction.

Third, that the state itself should acquire by purchase or by gift or by condemnation, logged off lands suited for timber growth and not for agriculture and adopt the policy of forest growth.

Fourth, that as early as the laws of the State of Washington can be revised so as to make it legally possible, that special legislation be passed making it financially possible for individuals to set aside lands suitable for forest growth and under a tax burden that will enable them to keep these lands intact until the timber is of an age and size suitable for use as lumber and I question a little whether we should attempt to define what this legislation should be at the present time, because it is through such details as this that one will stir up a Hornet’s nest, but that we submit to the State the favorable consideration of this program.’

The appropriate policy framework started to come together federally during Chief Forester
William Greeley’s administration. In 1924 the Clarke-McNary Act addressed not only the impediment of fire; it also encouraged the states to adjust their tax regimes to promote commercial reforestation by private interests.

In 1928 the McSweeney-McNary Act established experiment stations and a research programme to provide scientific knowledge and practical studies of reforestation. With these two Acts the conservative federal forestry role was in place. The government did not order the industry to conduct itself in the public interest. Instead it provided knowledge, tax incentives and public timber to elicit the desired public goods from the private actors.

It is instructive to the 21st century policy maker that the federal actions in the 1920s did not end this little saga of institutional impediments to sustained-yield forestry. The state and local tax authorities did not respond immediately to the 1924 federal legislation. Oregon led the way 5 years later with a ‘cut-over land’ tax fixed at only 5 cents per acre if the lands were used to grow a new timber crop. A yield tax would be due when the mature crop was harvested.

State officials did not adopt the enlightened tax policies on their own. In Oregon, Weyerhaeuser officials had decided on a tax strike to draw attention to their problem. The following year, local Weyerhaeuser managers were instructed to pay some of the Company’s taxes in person in recognition of the change the state had made. But they were also instructed to say that paying the taxes was a burden and that if further concessions were not made, they would go back on strike.

Similar pressure through land abandonment was applied in Washington, Idaho and Minnesota by Weyerhaeuser and its affiliates. Slowly state tax regimes were changed to encourage reforestation. Even those laws did not end this story. These new tax provisions triggered extensive litigation by county assessors throughout the country. In 1933, test cases in Idaho courts resulted in favourable rulings. However, in Washington the Reforestation Act was ruled unconstitutional in the lower court.

The following year the ruling was reversed by the state supreme court. So in 1936, about 30 years after Pinchot’s Forest Congress, my grandfather, J.P., and the third generation of Weyerhaeuser leaders were selecting which of their tax-delinquent cut-over lands Weyerhaeuser should hold for reforestation.

The impediment of taxes was tamed, if not solved. It took over a generation but the institutional framework for forest management was finally adapted to the vision of sustained yield. Today Weyerhaeuser is anticipating its third harvest from its Washington lands. The Weyerhaeuser experience in Minnesota provides an interesting counterpoint. Tax relief did not occur in this time frame. The Weyerhaeuser name is not so prevalent in Minnesota today. The neutral moral actors forfeited their lands in response to the incentives of the day.