

Collins Pine:
Lessons from
a Pioneer

CASE STUDY

PREPARED BY:
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*A Case Study from “The Business of Sustainable Forestry”
A Project of The Sustainable Forestry Working Group*

The Sustainable Forestry Working Group

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Collins Pine: Lessons from a Pioneer

Collins Pine Company, headquartered in Portland, Oregon, produces a variety of lumber products for industrial and construction markets. The privately held company, with revenues of \$220 million in 1996, runs forestry and manufacturing operations in California, Oregon, and Pennsylvania, operates three retail stores under the name of Builders' Supply in California, and markets products internationally through Collins Resources International Ltd. In 1996, Collins Pine expanded into the production of plywood, hardboard, and particleboard through the acquisition of Weyerhaeuser Company's Klamath Falls operation.

Collins has a long history in sustainable forest management. The company that eventually became Collins Pine started in 1855, when Truman D. Collins bought forestry and milling operations in Pennsylvania. Truman W. Collins, the founder's grandson, adopted sustained yield forest management on company lands near Chester, California, in 1940. The Collins Pine management system, based on U.S. Forest Service models under research at the time, emphasized selective cutting, a practice that creates stands of uneven-aged trees similar to those found in some natural forests. The Forest Service later switched to techniques that foster even-aged stands of trees, but Collins Pine retained and improved its uneven-aged management. This management style remains the foundation of the company's western operations today.

Throughout the company's 142-year history, the Collins family has maintained its ownership and an active interest. Maribeth Collins, widow of Truman W. Collins, is the current board chairman. The company's values and philosophy reflect those of family members, past and present. Stewardship is the cornerstone of that corporate philosophy, which the company defines as commitment "to the long-term management of our forest resources and to the responsible utilization of these and other resources to produce the finest-quality finished products."

As part of this commitment, in 1993 Collins Pine became one of the first companies in the world to have an independent organization certify that

some of its timberlands are well managed. As an early adopter of sustainable forest management and certification, Collins Pine has confronted a variety of challenges in its pioneering efforts to practice sustainable forestry and to market certified wood markets. Although the company has had difficulty finding premium-paying markets for its certified products, certification has enabled Collins Pine to gain access to new markets and to improve its business practices.

Company Operations

Over the years, the Collins Pine land base has changed in response to company needs. Some of its original lands were sold to pay inheritance taxes, while others were purchased as opportunities arose. Today, the company manages timber holdings in conjunction with manufacturing operations through Collins Pine in Chester, California; through Kane Hardwoods in Kane, Pennsylvania; and through an affiliate, Ostrander Resources's Fremont Sawmill in Lakeview, Oregon. Collins Pine also manages the recently acquired plywood, hardboard, and particleboard facilities in Klamath Falls, Oregon (see Table 1). Collins Resources International Ltd. (CRI), which acts as a wholesaler and the international sales force for the company, operates out of Portland. Traditionally, CRI's marketing efforts were concentrated on western Europe, but the company has recently identified the Pacific Rim as an area for expansion.

In 1993, Scientific Certification Systems of Oakland, California, certified Collins Pine's Almanor Forest in Chester as a "State-of-the-Art Well-Managed Forest," one of the first in the U.S. In 1994, Scientific Certification Systems awarded the Kane Hardwoods forest its "Well-Managed Forest" designation. A Scientific Certification Systems pre-audit of the Fremont Sawmill was completed in July, 1997. Collins Pine executives expect the mill and its timberlands to be certified in the spring of 1998.

The Collins Pine Operations	
Almanor Forest, Chester, Califor.	
Acreage:	94,000 (softwoods).
Facilities:	Sawmill with a 75-million-board-foot (MMBF) annual capacity; dry kilns; planer; remanufacturing plant.
Products:	Specialty and dimension products; construction and industrial lumber products; fuelwood or wood chips from logging.
Kane Hardwoods, Kane, Pa.	
Acreage:	122,000 (hardwoods).
Facilities:	Band-mill with a 20 MMBF annual capacity; dimension plant with an annual capacity of 4 MMBF; dry kiln with a 14 MMBF annual capacity.
Products:	Logs to domestic and export markets; dimension blanks and squares; glued panels, flooring, and moldings; material for shipping pallets; bark; small logs for pulp; wood residue to pulp facilities.
Fremont Sawmill, Lakeview, Oreg.	
Acreage:	Over 80,000 (softwoods).
Facilities:	Softwood lumber mill with an annual capacity of 40 MMBF; remanufacturing plant; dry kilns; and planer capacity.
Products:	Industrial and construction lumber.
Collins Products, Klamath Falls, Oreg.	
Facilities:	Plywood manufacturing (160 million square feet capacity annually based on a 3/8-in. measurement); particleboard mill (120 million square feet annually based on a 3/4-in. measurement); hardboard manufacturing (130 million square feet annually based on a 7/16-in. measurement). Facility uses sawdust, wood chips, and small-diameter logs from other Collins Pine locations.
Products:	Structural underlayment, sheathing, and tongue-and-groove plywood; particleboard 1/2-in. to 1 1/4-in. thicknesses; 1/2-in. and 7/16-in. hardboard siding.

Table 1

Business Definition and Strategic Intent

SUSTAINABLE FORESTRY ACTIVITY

Company-owned timberlands at Collins Pine's three manufacturing operations supply about 50 percent of each location's raw materials. Each site then buys logs on the open market to supplement its own log production and maintain manufacturing levels. Log buyers at each location reported that some of the material they buy comes from sustainably managed forest lands, although the sustainability of these other operations has not been verified. The combination of its own certified production and that purchased from the outside makes it likely that more than 50 percent of the total raw material volume used by Collins Pine's three solid-wood manufacturing locations comes from sustainable forestry operations.

Products made from wood that comes from certified timberlands can be marketed as certified and may carry the Forest Stewardship Council logo. The Forest Stewardship Council (FSC) is an international accreditor of independent product certifiers. Companies certified by an FSC-accredited certifier may incorporate the FSC logo into their marketing materials. Scientific Certification Systems is accredited by FSC, so by virtue of its SCS certification, Collins Pine has access to the marketing logos of both SCS and FSC. Collins initially utilized the SCS logo, but switched to the FSC version when it became clear that it was gaining recognition.

Both of Collins Pine's certified locations (Kane and Chester) carefully segregate material from their forest land that can be sold as "certified" and track it through manufacturing and shipping, so that it will not get mixed with products coming from non-certified sources. Neither location, however, markets more than five percent of its total production as certified, even though at least 50 percent qualifies. The limited market demand for certified wood accounts for the discrepancy between certified production and sales.

BUSINESS GOALS AND OBJECTIVES

Collins Pine's ability to survive in the competitive forest products industry is indicative of a sound business strategy based on the foundation of sustainable forestry. The obligation of mill and forest managers to provide an economic return to the owners is tempered by the company's policy of cutting no more timber from forests than can be sustained over the long term. Harvest levels are determined not by mill requirements but by forest growth. This long-term outlook has its advantages. Mill managers are able to anticipate timber production from company lands well in advance and plan accordingly to supplement their own supply with outside purchases.

Collins Pine manages its timberlands with multiple objectives. Forest management is designed to maintain and enhance diversity in the forest (among species and sizes of trees), improve forest health, and increase the production of high-quality timber to feed the company's production facilities. Broader goals of maintaining the forests' functions as watersheds and habitats for wildlife also are included in forest management planning. The overriding objective, however, is that Collins Pine's forest management personnel conduct their activities while keeping management options open for future generations. The willingness of the owners to forgo potential short-term profits in favor of long-term sustainability makes it possible to carry out these objectives.

The company also has other goals related to sustainable forestry and its corporate values. Producing high-quality products and developing markets for certified products are priorities. Collins Pine strives for public recognition as a socially and ecologically responsible company. As part of that objective, it makes long-term commitments to the communities in which it operates. Collins Pine actively promotes certification to help foster public support for commercial forestry and to help regain access to public forests in the Pacific Northwest that have been off-limits to logging in recent years.

THE COLLINS PINE BRAND OF SUSTAINABLE FORESTRY

Collins Pine managers in the mill or in forest operations share a distinct, cohesive vision of sustainable forestry. The company's timberlands are considered a resource base from which growth can be removed, but the net growing stock cannot be depleted. Managers commonly refer to company timber as "principal" and the growth as "interest," indicating that they are free to draw from the interest but that the principal must remain stable.

The activities of forest management personnel reflect that philosophy. In interviews, Collins Pine managers confirm that they consciously act in ways that will retain options for future managers, promote forest diversity, allow the forests to regenerate naturally whenever possible, and protect wildlife habitat and watershed functions. Forest managers tailor their management practices to each site using a variety of silvicultural techniques dictated by tree species, age, and other characteristics. Collins Pine uses both even-aged and uneven-aged practices to mimic the natural processes that create diversified tree stands and promote natural regeneration of trees.

Ecological and Social Effects

HEALTHIER FORESTS, SATISFIED EMPLOYEES, AND GOOD RELATIONS WITH NEIGHBORS

The effect of Collins Pine's land management practices is visible in the forest. Typically, foresters log sites at 12-year to 20-year intervals. They leave standing and downed dead wood in significant quantities. On lands under active management, harvests are light. Good road maintenance, relatively moderate terrain and climate, and careful timing of logging minimize damage to soil and water quality. In its audit, Scientific Certification Systems documented that the company's management practices cooperate with nature and that the company's



This massive ponderosa pine has been retained in the Collins Almanor Forest for its grand stature and the diversity it lends to the stand's structure and appearance.

foresters have a “commendable level of recognition for all forest resources, including wildlife, water quality, natural biodiversity, and visual aesthetics.” A walk through Collins Pine’s managed stands finds stands of trees that are often greener and visibly healthier than forests on neighboring public and privately held lands—even when those nearby forests are less intensively logged.

Collins Pine goes to great lengths to support the communities in which it operates. The company gives the public liberal access to its forests. It directly and indirectly supports local land-use consensus-building groups made up of all types of individuals, including preservationists. Collins Pine encourages

research and educational projects on its forest land, supports schools and hospitals, and, through its long-term commitment to stable employment, is recognized as a contributor to community economic stability.

The philosophy of the Collins family seems to have a profound influence on employees. Numerous interviews indicate that relationships among mill personnel often approach those associated with an extended family rather than a corporate employer, and that turnover is lower than the industry norm. Employees are often eager to speak at length about their relationship with the company and the respect they have for the Collins family. In one typical remark, an employee commented: “This is a wonderful company. The Collins family isjust great to work for and that’s why you don’t see very high turnover. They are concerned for their employees and the environment.”

The corporate culture encourages Collins Pine employees to carry the company’s philosophy beyond the workplace. At both the Lakeview and Chester operations, employees are active in consensus groups organized to help communities resolve the competing demands on land so prevalent in the Pacific Northwest. As Collins Pine’s ambassadors to these groups, employees educate and communicate with neighbors who do not always favor logging, and are able to stay “in tune” with the needs and concerns of their communities.

As part of its outreach, Collins Pine allows local schools to establish research plots and projects on its land. In Lakeview, for example, high school students have installed plots and monitored how well various techniques regenerate trees. The activity has accomplished more than simply educating young people in forestry. Collins Pine managers think that it also has given students an opportunity to see for themselves that managed forest lands are dynamic systems that can be harvested without sacrificing scenic beauty, wildlife, or sustainability.

Through these actions, forest certification, and the willingness of employees to spend time in the woods explaining their practices to the public, Collins Pine has earned sufficient credibility to work cooperatively with environmentalists on forest management issues. At the Chester operation, for example, this credibility has enabled Collins Pine to become an active member of the Quincy Library Group, a local consensus group that includes stalwart environmentalists.

On occasion, Collins Pine managers have made sacrifices to maintain the company's credibility. In 1995, Collins Pine was ready to bid on a salvage sale of burned timber on nearby federal land. Since the most feasible access to the salvage timber was through Collins Pine land, the company had an obvious competitive advantage to win the bid. Members of the Quincy Library Group, however, opposed the logging. Collins Pine withdrew from the bidding even though the sale made good business sense. In this case, the company preferred maintaining its relationship with the consensus group to proceeding with a deal of relative short-term importance.

CONSTRAINTS TO SUSTAINABLE FOREST MANAGEMENT

Private ownership undoubtedly plays a key role in Collins Pine's ability to employ the conservative forest management style that helped it gain certification. Under the company's forest management objectives, the land cannot be pushed to its maximum production level. Harvest levels may not exceed growth and often are below this level. Rotation lengths are significantly longer than those used by competitors, and management costs are higher on a per-unit basis. To achieve those objectives, Collins Pine's owners consistently place less emphasis on maximizing short-term profit than do most publicly held companies.

Sustainability can increase production costs or diminish profits in a number of ways. Harvest plans

tied to the status of the forests may hinder the company's ability to respond to fluctuations in market demand and/or price. Allowing trees to grow longer, leaving larger and more trees standing, and protecting non-timber resources often requires lower harvest levels and the use of more expensive harvesting methods. Finally, the company's need for comprehensive timber stand information and significant control over harvesting operations makes forest management labor-intensive.

It is difficult to fully quantify the cost of sustainable forest management for Collins Pine. A company adopting a Collins Pine style of forest management would likely recognize distinct increases in costs and perhaps decreases in profitability. Collins Pine, however, has operated under these constraints for years; any additional costs are an accepted price of its corporate philosophy. In recent years, Collins Pine has invested from \$16 to \$36 per thousand board feet of logs to cover forestry costs. These include the costs of marking trees for sale, overseeing harvest contractors, measuring forest growth, and maintaining forest roads. Company managers acknowledge that their costs are higher in some areas than those experienced by many other industrial forest land owners. They counter that the long-term stability of their wood supply afforded by conservative forest management practices compensates for any sacrifice in short-term profits.

Collins Pine's annual allowable cut gives the company an average of 316 board feet of logs per acre per year on its Almanor Forest. Its timberlands supporting the Fremont Sawmill in eastern Oregon produce an average of 125 board feet per acre. Because the Almanor Forest receives considerably more rain and has been under active management for much longer than the Fremont operation, this difference in productivity is not surprising.

By way of comparison, other private industrial forest lands in eastern Oregon averaged 268 board feet of logs per acre in 1995. Statistics specific to industrial forest lands were not available for northern

California, but the average for all private timberlands in the area, including Collins Pine's Almanor forest, was about 230 board feet per acre per year in 1994. This indicates that Collins Pine's Lakeview forests are producing well below industry averages, while its more-established Almanor Forest produces at a level that actually exceeds the area's average.

Eastern hardwood forests typically produce at a much slower rate than western softwood forests. Collins Pine's Kane hardwood forests are no exception. Annual allowable cuts there average 57 board feet of logs per acre per year, but recent measurements of the forests' growth indicate that cut could be considerably higher—perhaps even doubled. The average harvest for all of Pennsylvania's timberland was 102 board feet per acre in 1989. At that time, state estimates indicated that growth exceeded harvesting by 2.6 times.

These harvest estimates support Collins Pine's contention that it harvests at rates lower than the industry average. However, since many of Collins Pine's trees are allowed to reach greater age before being harvested, the overall quality of the trees and

their resulting value should be higher. Logs originating from Collins Pine's Almanor Forest do, in fact, tend to be of higher grades and larger sizes than those the company buys from outside sources. However, Collins Pine may not be purchasing a uniformly representative sample of logs produced on lands other than their own. If an area company were aggressively seeking quality logs on the open market, the material obtained by Collins Pine might be skewed toward smaller, lower-quality logs. What is clear is that Collins' forest management practices provide it with higher quality raw material than what it is able to purchase on the open market.

The costs of Collins Pine's certification activities can be quantified. Each certified location had a preaudit and a full certification audit. Each is charged a yearly fee to maintain its certification and will be re-audited five years from the initial certification date. Initial fees for the two certified locations totaled \$60,000 to \$80,000, and yearly fees for each location will cost as much as \$7,200. The company will pay additional costs as its Lakeview and Klamath Falls locations go through the process. Collins Pine estimates that capital improvements made as a result of certification may cost as much as \$250,000 per year for the next three years. These include setting up new systems to measure and document timber volume and growth in its Pennsylvania forests. Forest management costs have risen since certification—they have roughly doubled in the Almanor Forest—as forest managers responded to suggestions made by the certification team. In addition, the increased materials handling costs associated with tracking certified wood from the forest through manufacturing may reach \$150,000 per year. While these costs may seem impressive, they represent only about



This stand is characteristic of the components of the Collins Almanor Forest not yet brought under active management. It is predominated by white fir.

one percent of Collins Pine's total sales. Company executives consider this cost modest. They are quick to point out that many of these costs paid for improvements that were needed regardless of certification, and that those investments will return dividends through increased efficiency.

Market Analysis

THE ELUSIVE MARKET FOR CERTIFIED PRODUCTS

Collins has been relatively unsuccessful in marketing its wood products as certified. As stated previously, less than five percent of the lumber and other products produced at the Kane and Chester operations are sold as certified, even though at least 50 percent could qualify. At one point, the Chester operation sold more than 15 percent of its production as certified, but the level dropped after two separate arrangements dissolved. Although management has invested considerable time and energy, including 35 percent of the vice president of marketing's time for the last three years, no significant markets for certified product have materialized. Failure to develop these markets, while frustrating for salespeople, is not necessarily surprising given Collins Pine's early entry into the market. The company's pioneering efforts have, however, proved instrumental in bringing the issues of sustainability and certification to public attention and may provide a foundation for companies that enter the market later.

Collins Pine has identified specific geographic and demographic market segments that are receptive to certified products. Receptive consumers tend to be highly educated and have significant levels of disposable income. These geographic markets include Austin, Texas; Sante Fe, New Mexico; the San Francisco Bay Area in California; and Vail and Aspen, Colorado, as well as the United Kingdom. In the

U.S., the company has found that areas with harsher climates often harbor more "green" consumers.

The failure of the company's certified products to meet expectations in Portland, Oregon, is an indication, according to Collins Pine managers, that consumers are often more inclined to talk "green" than to act "green." Company personnel referred to a California Forest Products Commission study that investigated the nature of consumer perceptions of certification. Focus groups conducted for that study indicated that most consumers would not pay a premium for certified products. In fact, these consumers did not think certification should be necessary. They felt that companies should already be following stringent regulations and that sustainable forestry should be a given.

Collins Pine's evaluations of consumer demand come from the company's experience in dealing with their markets rather than from primary research. Salespeople often field calls from people interested in buying certified wood products, but those calls come mostly for consumer products, for which Collins Pine can provide only the raw material. Salespeople at corporate headquarters also get similar calls. This may happen partly because the company's 800 number is printed on the sticker that accompanies its certified products, and because it has received extensive press coverage for becoming certified. In any case, Collins Pine has become a source of information for consumers trying to find certified products.

MARKET BARRIERS TO CERTIFIED PRODUCTS

Collins Pine has encountered a number of barriers to marketing its certified products. These barriers fall into five general categories:

Limited market demand. The actual demand for certified or otherwise sustainably-produced wood products is currently limited and segmented. As a market pioneer, Collins Pine has struggled to identify and serve these small niches efficiently.

Unfavorable consumer perceptions. Collins Pine sales and marketing personnel have discovered that their customers often harbor the misconception that certified wood must be inferior to wood produced through “standard” industry practices. These individuals think that companies sacrifice quality to reduce environmental impacts. This belief was evident even when marketing to another environmentally oriented firm, The Home Depot. In Collins Pine’s case, however, the opposite is actually true. Trees are allowed to grow longer than on comparable industry forests. These older trees tend to have a higher proportion of clear, defect-free wood. Collins Pine personnel have had to educate potential certified product customers by demonstrating the relationship between their forest management practices and the quality of the products they produce from that wood.

Limited distribution channel development. Existing wood products distribution channels are reluctant to carry certified wood products. These products must be tracked from the forest floor to retailers’ shelves, which requires sophisticated systems unless certified product remains segregated during storage and transport. In this way, certification adds complexity and cost to the distribution process.

Difficulties in meeting specific market demands. If there are markets with a significant demand for certified products, as in the U.K., other problems surface. CRI personnel receive phone calls almost every day from companies interested in certified products. But those potential buyers have precise demands. They typically require the highest-grade lumber of a specific species and thickness. More often than not, the volume requested in the specific grade, species, and thickness exceeds what Collins Pine can produce or CRI can get through other sources.

Limited product availability. Certified wood products are currently available only in extremely limited volumes, which has a number of implications.

Most wood products producers have neither sought nor obtained certification, which makes distributors hesitant to carry the certified products available. It is difficult for distributors to find enough product volume to justify allocating floor space, storage, and other distribution resources to certified products. In turn, the dearth of readily available sources of certified materials makes product specifiers, such as architects and engineers, reluctant to use these products in their designs.

This combination of market inhibitors has created a dilemma for certified wood product producers—one that resembles the old chicken-or-egg story. Product volume will not grow until distribution channels are developed. Distribution channels will not develop unless sufficient quantities of product are available and consumers demand it. Yet consumer demand appears to be stifled by a lack of product. Collins Pine has yet to identify which component of the market is a precursor to the development of the others. In the meantime, those consumers who now want certified wood products often cannot get them, even though certified raw material is available from Collins Pine and other forestry operations.

Strategies and Experiences

BUSINESS STRATEGIES

Collins Pine operates under six strategic priorities:

Quality. Collins Pine management and employees recognize product quality as the company’s paramount competitive advantage. As Lawrence Potts, general manager in Chester, commented, “When consumers are walking down the alleys in The Home Depot looking for lumber, they are not looking for a sticker that says certification. They are looking for a board of quality.” The company’s forest management strategy facilitates quality because

it produces larger, higher-quality logs; its manufacturing operations follow through by maintaining high levels of technical sophistication.

Collins Pine pays close attention to customer concerns, which undoubtedly contributes to the quality of its products. The Chester operation's general manager explained that they regularly bring customers to the mill and ask them to evaluate how effectively Collins supplies quality products. Customers are encouraged to examine lumber piece by piece and share their likes and dislikes. Collins Pine also surveys customers quarterly to determine their satisfaction with the products. To improve quality, managers at the Chester operation indicated that they may compete for the Malcolm Baldrige Award for Quality, a process that can help companies improve their quality management.

Price. Collins has adopted a long-term strategy to develop markets for certified products. It tries to establish relationships with customers at market prices, and has an informal agreement with one customer to share profits when a premium is realized. Although the company would like to realize price premiums for certified products, it has not yet required a price premium as a prerequisite for offering certified products.

Employees commented that they think that certified products can justify a price premium. When asked whether they felt that the price of certified products "should" be higher than non-certified but otherwise equivalent products, Collins Pine personnel nearly always answered in the affirmative. They said that since certification has associated costs, Collins Pine should recover these costs. Employees also commented that since sustainable forest management requires less intensive logging, resource owners should be entitled to a premium to offset the lower harvests. Employees who considered the question from a consumer perspective responded differently. They said that consumers may have a right to demand sustainability from the forest products

industry, and that companies should not necessarily expect a price premium for certified products.

Distribution. Traditionally, Collins Pine has sold to commodity markets. In the early 1990s, the company shifted its efforts from commodity markets toward higher-margin markets, such as furniture and specialty shelving, that would be more likely to pay for high-quality products. Collins Pine has since streamlined its distribution channels by selling more products directly instead of through brokers or wholesalers. The shorter channels allow Collins to deal more effectively with niche markets, help offset the added costs of selling in smaller volumes, enhance its ability to communicate with customers, and facilitate quality improvements.

Company Image. Collins Pine works diligently to maintain a respectable corporate image and tell its story to anyone who is interested. Many of the foresters have become "expert" public relations people because they spend so much time talking with the public and giving forest tours. One forester claimed to spend ten times more time on public relations for Collins Pine than he spent in a similar position for his previous forest industry employer. The Chester operation's chief forester claimed that virtually no one who wants to visit is denied.

Certification has generated numerous positive articles in newspapers, magazines, and forest industry and environmental publications. The company also was recognized for its efforts by the President's Council on Sustainable Development, which awarded Collins Pine the President's Sustainable Development Award in 1996. This type of promotion, company executives pointed out, cannot be purchased at any price.

At the same time, R. Wade Mosby, Collins Pine's vice president of marketing, contends that the company's brand name, "CollinsWood[®], The First Name in Certified Wood Products," is gaining recognition. Customers are beginning to recognize CollinsWood[®] even though they may not recognize

the Collins Pine name. A well-recognized brand name may prove valuable in the future to build demand for Collins Pine certified wood products.

Competition. Defying conventional corporate logic, Collins encourages competition in certified products to overcome the limited availability of products and the poorly developed distribution channels that now inhibit the market. Collins Pine would like to see larger companies enter the certified arena. One company executive estimated that to make a market for certified products work efficiently about ten percent of the wood consumed should be certified. At present just one-half of one percent comes from certified production.

Low consumer demand contributes to Collins Pine's difficulty in establishing significant market share for its certified products. Most consumers are not only unaware of sustainable forestry issues but also do not understand what certified products are. If more certified products are stocked on retailers' shelves, consumer awareness may rise. The existence of sufficiently large volumes of certified products to make an impression on the average consumer may be the most important catalyst for demand. That, at least, is the hope of Collins Pine managers.

Strategic alliances. In the face of lackluster consumer demand, Collins is considering alliances with other companies to market certified products. One suggestion on the table entails teaming up with several suppliers of certified products for home construction. Collins Pine envisions creating a package of certified products that could be marketed to the professional builder or final consumer building a home. Another concept involves forging an alliance with an industrial customer to produce a final consumer product. Through an association with a consumer goods producer, Collins Pine could begin educating the final consumer—where demand needs to be generated, according to company managers—and start to build demand for its brand name certified products.

A CHECKERED SUCCESS IN MARKETING

Collins has mounted five significant certified product initiatives. Two of them, pine shelving and white fir lumber for furniture, are now defunct. Of the other initiatives, veneer logs are still sold to a slicing operation in Kentucky, white fir construction lumber is sold in Austin, Texas, and low-grade hardwood lumber is sold to a flooring manufacturer. Other, smaller efforts have involved a small wholesaler, a builder in California, and a builder in Sun Valley, Idaho.

Pine shelving. Collins Pine developed and sold pine shelving to The Home Depot of Atlanta, Georgia. The product was stocked in six stores in the San Francisco Bay area. By selling directly to the retailer, Collins realized 15 percent more profit on the product than it would have through normal distribution channels. Concurrently, The Home Depot was able to lower its retail price and maintain profit margins. The shelving sold as CollinsWood[®] appearance grade, a proprietary grade designed to meet customer preferences and optimize the value of the raw material.

Even though the pine shelving product sold well and store managers liked it, The Home Depot dropped the product in late 1996 for reasons that remain unclear. Collins Pine managers attribute the action to the difficulties of warehousing the shelving. The Home Depot warehouse in Stockton, California, had to store the product separately to meet the chain-of-custody requirements, since Collins could not supply enough shelving to meet the demand generated by more than a few of The Home Depot's many stores.

White fir furniture stock. White fir lumber sold to Lexington Furniture, part of the furniture maker Masco, for a line of designer furniture was a great success from Collins Pine's perspective: The company realized 40 percent more for the wood than if it had sold it as construction lumber. The "Keep America Beautiful" furniture line was featured on

cable television's "The Furniture Show," which included footage of the Collins Pine mill in Chester along with interviews with the chief forester and general manager. The line also was covered in the December 1994 issue of *Furniture Design & Manufacturing*.

The line did not, however, fare well with consumers for a number of reasons. The furniture was bulky and would overpower rooms in an average single-family home. More than 100 different pieces were available, but individual pieces were priced fairly high, and no suite prices were offered. Customers, who were more accustomed to hardwood furniture, did not take readily to white fir. The pieces were often damaged during shipping (if dropped, white fir tends to split) and as a result the packaging had to be redesigned, which caused frustration at Lexington. During its first year, the line sold over \$5 million. That sales level might have been considered a success with a smaller company, but the cash flow was insufficient for Lexington and the line was discontinued.

The pine shelving and fir furniture initiatives demonstrate that certification is only one of the many product attributes evaluated by consumers. Certification cannot serve as a crutch for an ill-conceived or poorly marketed product, nor will it as yet spark enough consumer interest to pull difficult-to-handle products through distribution channels.

Veneer logs. The Freeman Corporation purchases high-quality, veneer-grade logs from the Kane and Chester operations. Freeman, which operates a veneer slicing operation in Kentucky, markets the veneer as certified. Freeman has agreed to share with Collins Pine any profits above a certain level that it realizes on sales of certified veneer. Although profit sharing has not yet reached significant levels, Collins Pine benefits from a stable buying arrangement and alliance with a company that helps promote certification.

White Fir construction lumber. Collins Pine has found a ready market for construction grades of white fir lumber in Austin, Texas. Sales are directly related to the Austin Green Builder Program, which encourages the use of "sustainable" building materials. The white fir competes with southern pine in this market and in general costs less in the larger dimensions (2X8 and 2X10). Collins Pine, however, so far has not realized a consistent premium for the certified wood. Some months produce a premium as high as two percent, while in others the product is actually sold at a slight loss. The level of the premium is related to the fluctuating price of southern pine. While certification gave Collins Pine entry into the market, it is unclear whether any premiums can be attributed to certification or simply to the availability of larger-dimension lumber.

Hardwood flooring. The Kane division sells about one truckload of low-grade cherry lumber each month to a company that produces flooring. Demand for the cherry outstrips what Collins Pine can supply. Traditionally, this low-grade material was sold as pallet stock. The rustic-looking lumber, however, appeals to certain segments of the building market. When sold into these niches, Collins Pine can sell the wood for almost twice what it gets as pallet stock.

Is there a "green" premium? Collins Pine uses certification as one component in the marketing of its total product offerings. It has had little success certifying an existing product line and recognizing a market premium, which makes it difficult to attribute any premium directly to certification. What the examples clearly show, however, is that certification has opened up new markets for Collins Pine. In several instances, the profits from the company's products in these new markets exceed those that the raw material would otherwise generate if sold into its traditional markets. Certification can positively influence market success if it is properly exploited, although—at least for this company—it is difficult to attribute a price premium to the certification itself.

FOREST MANAGEMENT STRATEGY

At Collins Pine, forest management revolves around its system of “principal and interest,” which essentially means cutting only the growth of the forest while keeping the overall stands of trees stable. The success of the company’s forest management depends on accurate inventory and growth estimates. Different methods are used in each of its three major forests to gather the information. The Almanor Forest near Chester, California, has a long history of forest inventory. Permanent growth plots were established in the 1940s and now number over 550. Timber in these plots is managed identically to surrounding timber and the plots are re-measured every ten years, which gives an accurate estimate of timber growth that is then used to determine harvest levels.

The other two locations do not have the same amount of stand information on which to base harvest decisions. At these operations, foresters have relied on their personal knowledge of the condition in stands to set harvest levels. Critics have faulted these methods for their potential lack of accuracy. The company has responded by investing in the development of stand inventory data and systems to gather and manage this information. Although Scientific Certification Systems initially cited Collins Pine’s lack of stand inventory data as a significant concern in its certification audit of Kane Hardwood, in the end it agreed with the company foresters that the growth of the stands exceeded harvest levels.

Silviculture in Oregon and California.

Each of Collins Pine’s timber-growing operations uses forest management techniques tailored to local species, sites, and climate. The 94,000 acres at Chester and the 80,000 acres at the Lakeview location feature rela-

tively moderate terrain dominated by ponderosa pine/Jeffrey pine and white fir. The Lakeview operation produces about 35 percent white fir and 55 percent ponderosa pine/Jeffrey pine, with the remainder a combination of lodgepole pine and incense cedar. Trees grow slowly in this region, and as a result produce high-quality wood. In both places, the company uses predominantly uneven-aged management and natural regeneration. Units are logged in 12-year to 20-year intervals. Trees are selectively cut, particularly those that have begun to decline in vigor. In recent years, the foresters have concentrated on removing white fir from stands, an action recommended by Scientific Certification Systems to improve sustainability. Collins Pine’s practices of selective logging and suppressing natural fires on its western lands had created stands that were overstocked with white fir, a situation that increased the risk of fire and discouraged regeneration of the more desirable ponderosa pine/Jeffrey pine trees.

Foresters mark sections of forests to be logged, indicating which trees are to be cut and which are to be left standing. In general, those trees with the



Collins Almanor Forest, Chester, California. In these uneven aged stands a wide range of tree sizes and species is present.

poorest health and/or form are removed, with the exception of those left for wildlife habitat. Foresters sometimes leave particularly old trees standing out of reverence for their age and stature. These management activities create healthy stands that contain trees of a variety of sizes and species. Foresters rarely use herbicides because the partially shaded, managed stands tend to keep the density of undergrowth moderate. Chemicals are used primarily in disturbed forest areas, such as those that need planting or that have been damaged by wildfire.

Silviculture in Pennsylvania. The 122,000 acres of Kane woodlands in Pennsylvania's Allegheny Plateau are quite different from Collins Pine's West Coast land holdings. These forests are dominated by black cherry and other hardwoods that have a limited tolerance for shade, so they are managed in essentially even-aged stands. Rotation lengths are relatively long, about 100 years.

To encourage the trees to regenerate naturally, foresters use a shelterwood method of management. They mark the trees in a given area that are to be left standing and those that will be used as seed trees, then cut all the others. This drastically reduces the density of the stand, allowing sunlight to reach the forest floor. Herbicides are used, when necessary, to reduce competing undergrowth. The shelterwood trees are left standing until the seedlings have regenerated to the desired level. The overstory trees, except those designated as wildlife habitat or left for aesthetic reasons, are then removed and full sunlight is allowed to reach the forest floor. The process promotes rapid growth among the hardwoods. If the overstory is not removed at the proper time, competing vegetation will outgrow the young trees and it will take many more years for the area to ade-



Collins Pine hardwood forestland, Kane, Pennsylvania. In these even-aged stands, although several species are present, the stem diameters are relatively uniform.

quately regenerate. Even then, the density of trees may be too low or the trees poorly formed.

In its Pennsylvania forests, the company logs small (approximately five- to ten-acre) plots that are distributed over a broad area to maintain diversity in tree ages, forest structure, and wildlife habitat in the larger landscape. Harvest levels in the Kane forests are conservative; foresters estimate that they remove only one-third of the annual growth. They base their growth estimates not on plots, but on their own deep knowledge of the land base. The staff, however, is installing a geographic information system to keep records as Scientific Certification Systems recommends. It plans to "cruise" the timber holdings to establish necessary baseline data such as the number of trees and their size, age, and condition. Periodic remeasurements to document growth rates and forest conditions will serve as the basis for future management decisions.

Remedial actions. Much of the land purchased by Collins Pine has a legacy of overcutting, poor regeneration, or simple lack of attention. Some of these lands may require many years of growth and

remedial actions to create the diverse tree stands that company managers want. On the western lands, remedial actions involve cutting down unhealthy trees, reducing the number of white fir, and thinning to promote the desired age and size distribution of trees. In the company's eastern holdings, past practices have left foresters with a number of overstocked stands dominated by small-diameter trees. As these stands are thinned and otherwise managed, the diversity of the stands, average tree size, and overall forest health will increase.

Fire and grazing. Fire and grazing are not used as forest management tools to any great extent in the Chester or Kane locations. However, the Chester forestry staff is interested in experimenting with these tools to control vegetation after wildfire and to encourage the regeneration of ponderosa pine/Jeffrey pine. In no case is it company policy to allow grazing near streams, although the company may try grazing cattle in other areas to help keep down the vegetation that prevents the growth of desired tree species.

Business Performance

Collins Pine's performance has declined over the last several years, reflecting market conditions. Table 2 shows the company's financial performance based on Dun and Bradstreet's Business Information Report and includes the average Random Lengths Framing Lumber Composite price for the same period for softwoods only.

Comparing lumber prices with the company's financial performance reveals that Collins Pine's lower financial performance corresponds to dips in lumber prices in those years. In addition to experiencing low prices for lumber, log prices were high during the same period. At the Chester operation, the average value received for lumber dropped by over 15 percent between the 1994 and 1996 fiscal

years, while the cost of buying logs from outside sources increased by 4.5 percent. The situation at the Lakeview operation would have been similar. Wood chip prices, which are extremely cyclical, also were at the lower end of the cycle during the 1995 and 1996 fiscal years. Profits from the Chester operation's co-generation facility dropped from nearly \$500,000 in 1994 to break-even in 1996. Hardwood markets experienced a similar cycle to that of softwoods, with low prices realized in the 1995 and 1996 fiscal years.

By a number of measures, the company operates efficiently and competitively when compared with similar operations. A recent study by The Beck Group in Portland, Oregon, compared the Chester operation to 16 other western softwood mills on a variety of performance indicators. The total conversion costs at Chester were lower than average and the production volume per man hour was higher. Sales average for ponderosa pine was far above, while sales averages for Douglas fir, fir/larch, white fir, and hemlock-fir were higher than for any other mill in the study. The evidence indicates that the forestry approach taken by Collins Pine has not negatively impacted its business efficiency or performance.

Sustainable Forestry Outcomes

LESSONS LEARNED

- Foresters have tremendous authority under Collins Pine's land management regime. They dictate to the mills what harvest levels will be, rather than the other way around. This is not the industry norm. It takes individuals committed both to the company's land and to its owners to strike a balance that allows the company to remain profitable without impinging on long-term land management goals.

- Sustained-yield forestry reduces the uncertainty of supply that mill managers typically face, to the extent that company-owned land supplies its own raw material needs. It also encourages long-range planning and long-term investment.
- Collins Pine's commitment to sustainable forestry and sustained communities appears to engender significant goodwill from community members, employees (who may stay with the company for longer than the industry average), and persons and organizations that do not typically support the forest products industry.

UNINTENDED CONSEQUENCES

- Collins Pine was not required to alter the management of its forests in any significant way to achieve certification. The company's long-term commitment to sustainable forestry allowed it to work through the certification process with relative ease. The certifying organization did, however, make a number of recommendations for potential improvements. Collins Pine responded by increasing supervision of logging crews, increasing documentation of its forest management plans, increasing road maintenance, and making significant investments in forest inventory measurement and tracking systems.
- It could be argued that the company's commitment to sustainable forestry has allowed it

to stay in business when others have failed. Many mills in the Northwest have gone out of business in recent years because they depended on harvests from public lands. As more public forest lands were taken out of production for various reasons, those operations had their supplies disrupted. Through sustainable forestry, Collins Pine is ensured that at least part of its supply will remain stable over the long-run.

Financial Information and Lumber Prices for Collins Pine Softwood Lumber Operations

	Consolidated 1994	Consolidated 1995	Consolidated 1996
Ostrander Resources Co.			
Current Assets	\$18.86m	\$20.19m	\$19.72m
Current Liabilities	\$ 1.94m	\$ 2.19m	\$ 1.37m
Current Ratio	9.70	9.20	14.4
Working Capital	\$16.92m	\$18.00m	\$18.35m
Other Assets	\$20.89m	\$21.03m	\$23.02m
Sales	\$26.12m	\$27.03m	\$26.9m
Long-Term Liabilities	N/A	\$.011m	\$ 1.23m
Net Profit (Loss)	\$ 2.81m	\$ 1.21m	(\$0.21m)
Profit as % of Sales	10.7%	4.5%	0.0%
Collins Pine Company			
Current Assets	\$32.09m	\$39.79m	\$36.91m
Current Liabilities	\$10.98m	\$17.92m	\$20.53m
Current Ratio	2.92	N/A	1.79
Working Capital	\$21.11m	\$21.87m	\$16.38m
Other Assets	\$38.10m	\$39.09m	\$78.07m
Sales	\$76.87m	\$82.13m	\$78.10m
Long-Term Liabilities	\$ 2.82m	0	0
Net Profit (Loss)	\$6.02m	\$ 087.m	(\$2.13m)
Profit as % of Sales	7.8%	1.1%	0.0%
Random Lengths Framing	\$402	\$382	\$329
Lumber Composite Price (\$/thousand board feet)			

Sources: Business Information Reports, Dun & Bradstreet Information Services, and Random Lengths Yardstick, Random Lengths Publications Inc., Eugene, Oregon.

Table 2

- Some Collins Pine personnel claim that by increasing their understanding of the forestry and manufacturing operations, the process of certification has made them better managers. The inventory control requirements to ensure the chain-of-custody for certified products call for precise tracking of volumes, species, and points of origin of wood, which has made inventory systems more efficient and reliable. The process of marketing certified products has helped the company shift from a commodity market orientation toward higher-value specialty products. If generally accepted marketing principles hold, that in itself should enhance Collins Pine's financial performance.
- The industry does not unanimously support Collins Pine's position on certification and sustainable forestry. The company's stance, in some instances, has caused other forest products companies to view it with distrust. They feel that Collins Pine has broken rank with the industry to curry favor with environmentalists.
- Many different forest management regimes may qualify for some level of sustainability certification. Collins operates even-aged and uneven-aged management schemes and uses herbicides, yet it falls within the definition of a well-managed forest as defined by Scientific Certification Systems.
- Certification provides a number of non-market, image-enhancing benefits that are difficult to account for monetarily. These include public goodwill, credibility with environmental organizations, and interest from the news media.
- Certification may provide competitive advantage as one characteristic of the overall product. In addition, certification can open up new markets and opportunities. Certification will not, however, compensate for a low-quality or poorly marketed product.
- The ownership structure of a company can have a significant influence on sustainability. Publicly owned companies are typically driven by short-term profit. As a privately held company, Collins Pine can more readily forgo short-term returns in favor of long-term objectives. But private forest ownership can also hinder the ability to operate sustainably. The U.S. estate tax structure imposes inheritance taxes that can sometimes be paid only by selling timber lands.

What Can Be Learned from Collins Pine?

- Market demand for certified products is currently limited and characterized by demographic and geographic segmentation. While future levels of demand cannot be predicted, it is clear that a variety of factors—such as unfavorable consumer perceptions, limited distribution channel development, and limited product availability—dampen that demand. *(Author's note: Conversations with Collins Pine executives during final editing of this manuscript suggest that general demand for certified products is increasing, albeit slowly.)*

Copies of individual cases studies, or a bound set of all the case studies listed below, are available for purchase from the distributor, Island Press, which in 1998 plans to publish a book-length study based on this material entitled *The Business of Sustainable Forestry*.

For purchasing information contact:

Island Press
Phone 800.828.1302
Fax 707.983.6414

The working group has an Internet website at <http://www.sustainforests.org>

The Cases

Overall Market Analyses:

OVERVIEW OF SUSTAINABLE FORESTRY

A conceptual and illustrative framework for sustainable forestry.

SUSTAINABLE FORESTRY WITHIN AN INDUSTRY CONTEXT

Defines the relationship between sustainable forestry and the entire forestry industry.

MARKETING PRODUCTS FROM SUSTAINABLE FORESTS: AN EMERGING OPPORTUNITY

The current demand for sustainable forest products and the likely demand over the next two to five years.

A REVIEW OF EMERGING TECHNOLOGIES

New technologies which influence investment decisions in sustainable forest management.

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The Business of Sustainable Forestry

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