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Nonindustrial Private Forest Landowners: Building the Business Case for Sustainable Forestry

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THE TRAPPIST ABBEY FOREST: EFFECTIVE CONFLICT RESOLUTION

The Trappist Abbey of Our Lady of Guadalupe, a monastic community of men, owns 1,350 acres of forestland near Lafayette, Oregon. The Abbey purchased the property when it moved from New Mexico to the present site in 1953. The forest is an essential part of the monastic community. It provides the physical and spiritual setting for the community, acts as a buffer to neighbors, and allows for cloistered retreat. It is also the basis for a forestry enterprise, one of the four cottage industries that members run, which enable the Abbey to be self-supporting. To date, each of the other industries (book bindery, fruitcake bakery, and wine storage) has provided more income than forestry. In the future, however, the forestry program is expected to provide an increasing share of the Abbey's income, as members age and income from other industries declines.

In 1996, 37 members with an average age of 67 lived communally at the Abbey and worked collectively in the four cottage industries. A forestry crew of three work year-round to manage the land, including planting, thinning, timber stand improvement, and harvesting. A forestry advisory committee, made up of members within and without the Abbey, was created in 1994 to address forestry issues. The forestry decisions, however, are made democratically, and the entire community is involved in planning discussions.

The forestry experiences of the Abbey illustrate just how much time and effort it takes to build a productive, sustainable forest from the ground up. The Abbey Forest is also a good measure of the financial returns that are possible through continued forest improvement and management. The Abbey community has learned to resolve conflicts over forest use in its own ranks, in part through the use of sustainable forestry. The Abbey's approach to resolving the inevitable conflicts that arise over forest management may offer a useful example for forest use conflict resolution using SFM.

The Abbey Forest

The Abbot of Trappist Abbey, Inc. (ATA), a 501-C3 not-for-profit corporation owns all the land. The various enterprises of the Abbey are organized under the Trappist Monks of Guadalupe, Inc. (TMG), a 501-d corporation. Similar to a partnership, each monk, as a member of TMG, receives shares of income, and pays individual federal and state taxes. TMG receives timber harvest income and pays expenses, including property tax.

The Abbey owns a contiguous block of 1,350 acres on gentle slopes and low hills at the west side of the Willamette Valley, three miles north of the small agricultural town of Lafayette and 30 miles southwest of Portland. The forested area is divided by central fields, the residential and commercial area, numerous stream areas, and a county road.

The soils of the Abbey Forest vary from shallow, rocky, dry southwest-facing ridges and wet low-lands to productive uplands. Elevation ranges from 200 to 1,000 feet. These are seasonally dry sites, since they are in the rainshadow of the nearby Coast Range. Rainfall averages just 40 inches per year. The site quality on average is fair to moderately good, with a 50-year site index of 100 to 125, which means that on average trees grow 100 feet every 50 years.

Of the 885 forested acres, approximately 125 are either too wet or too rocky to grow commercial timber. Of the remaining 760 acres about 150 acres are covered with maturing fir stands, 230 acres with mixed oak-fir stands, 330 acres in 10-26-year-old plantations, and 50 acres in plantations less than 10 years old. Based on a 1996 cruise of the land, timber volumes exceed 7.8 million board feet, with annual growth of 500,000 board feet. At a 1996 stumpage rate of \$550/inbf, present timber values are near \$4.3 million, with annual growth of \$275,000. Most agricultural land has been leased to neighboring farmers since the 1960s, when the community gave up farming.

The Abbey Forest is considered a mixed oak-conifer forest type of the interior Willamette Valley. Forests here are typically dominated by Douglas fir (*Pseudotsi-qa inciiziesii*), grand fir (*Abies grandis*), Oregon white oak (*Qiiercus garryalina*), bigleaf maple (*Accr macr(TIT11141B)*), in either pure or mixed stands. Most of the moderately sloping sites in the area were at one time farmed or grazed. As such, the forests are relatively young. Most trees are less than 100 years old, although a few isolated oaks over 150 years old are still standing. The property provides good to excellent habitat for deer, game birds, songbirds, and a host of other species, but contains no known rare or endangered species.

The Abbey Forest is set in a primarily rural, agricultural area of the densely populated Willamette Valley. Small farms and woodlands dominate the immediate landscape. Agricultural lands are generally productive, raising a variety of crops, including vegetables, small grains, fruit and nut orchards, and wine grapes. About half of the surrounding foothills are forested, mostly in small nonindustrial private ownership.

Forestry on Abbey Lands

Most of the property was logged just before the Abbey purchased it in 1953. At that time most fir greater than 10" in diameter was cut. In the mid-1960s The Abbey started active forest management when a forestry crew and chief were appointed. Initially, they concentrated on replanting cutover stands and surplus agricultural lands. From 1969 to 1981 all suitable timberland was planted, totaling 320 acres. The first commercial harvests began in the late 1960s, but extensive annual cutting did not occur until the mid-1980s, when many plantations were ready for thinning.

The Abbey has used a variety of management techniques over the years in response to changing market opportunities, and the growing expertise of the forestry committee. An early harvest of oak veneer used some of the older high-quality trees left after the early 1950s harvests. Early work with a consultant in 1978 thinned maturing stands. Commercial harvesting in the 1980s thinned young plantations and converted less productive, poor quality residual stands to plantations. In conjunction with these harvests, defective fir and oak was cut for firewood. During the 1988 to 1995 period over 100 mbf were cut annually.

Several early plantations failed on droughty sites. At the time, the 1960s, there was a relative lack of knowledge of how to reforest harsh sites, and few private woodlands in the area were under any type of stewardship management. The Abbey forestry committee learned by trial and error, refining their methods as they gained more experience. In later plantings other species, such as Ponderosa and Radiata pine, Leland cypress, and poplar, which were better suited to the adverse sites, were used in addition to Douglas fir.

Early management needs were easy to recognize, and with the exception of droughty sites, relatively easy to implement. Only in the late 1980s and early 1990s, however, were all parts of the property brought under management. It has been difficult for the Abbey to achieve integrated, sustainable management of the entire ownership due to the lack of a thorough management plan, and until recently, a lack of consensus among the community on how to proceed.

As harvests intensified in the mid-1980s, small clearcuts (5-6 acres) became more common, and resistance in the community to the visual and aesthetic impact of logging grew. In 1989 when a site near the edge of a common picnic area was clearcut, the brothers became openly divided over the forestry program. Some insisted that the cutting stop. Others wanted the program reconsidered. From 1989 until 1994, small clearcuts continued, but they were out of sight of the residence. In 1994 a new Abbot, Father Peter, took over. He created the forestry committee and the community decided to hire an outside forest manager to draw up a long-term plan for the Abbey's woodland, and oversee future

harvests.

Abbey's SFM Strategy

Conscientious stewardship has always been a primary goal of the Abbey community in all of their endeavors. In the forestry program, maintaining the spiritual and aesthetic values of the forest are top priorities. Annual timber harvests are planned to help provide for community financial needs, as much as possible without conflicting with other forest uses. The forestry program also aims to increase understanding of forest management activities within the community, and through planning and record keeping, to pass the program on to future members.

Over the years the Abbey has increasingly sought help from outside experts. In 1995 the Abbey contracted with consulting forester Scott Ferguson (ITS Management) to help develop a forest policy, prepare a detailed long-term management plan, and assist in future timber sales. The Yarnhill County extension forester serves on the Abbey forestry advisory committee. The Abbey has also used outside financial and legal advise in many of their community endeavors.

In 1996 the Abbey adopted specific forest policies for SFNI and integrated them into a long-term management plan to minimize conflicts between the community's financial needs and their needs for the forest's other amenities. Specific policies address ways to maintain diversity in tree species and ages; landscape and preserve unique trees and areas, such as old oak or trees near streams; implement suitable harvest methods, such as thinning; limit the size and use of clearcuts; and maintain the productivity of the soil.

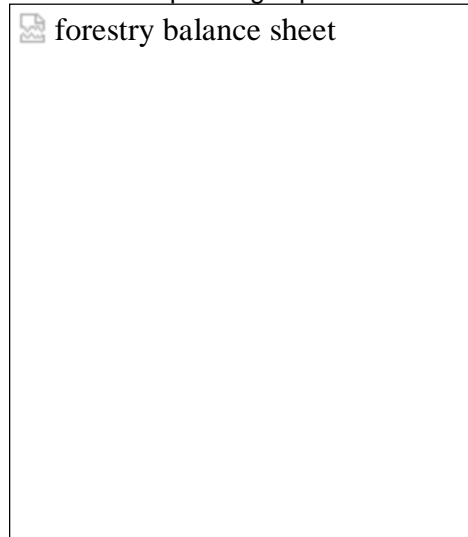
The Abbey is currently implementing these new management policies. Harvests in 1996 used a combination of individual tree selection, high thinning, and regeneration cuts using group selection, and scarification to mechanically expose mineral soil, which helps the forest regenerate naturally. The advisory committee will provide oversight to help ensure that management activities conform to specific policies, and that any conflicts over forestry activities are resolved.

The long-term prospects for the Abbey forestry program are favorable. The program has an impressive record to date, and both timber values and sustainable harvest levels will increase significantly in the future. The long-term success of the Abbey forestry program will ultimately be determined by its ability to provide a greater proportion of the community's financial needs as the brothers get older. Meeting those needs may eventually force changes in the forestry program. In the future, the community will face a major challenge, in maintaining current levels of management, whether by new young initiates or by outside contractors.

Forestry Balance Sheet

Property taxes on the 885 forested acres totaled \$1,800 in 1995, or \$2.03 per acre. Taxes are paid by TMG which also pays a modest rent of \$750 per year (\$0.85 per acre) to ATA for use and operation of the forestlands.

The Abbey forestry crew does all logging, road building, timber stand improvement and tree planting. Trucking is contracted. Operating expenses for 1995 were \$29,741, in these main categories:



Based on 1995 harvest of 30 acres (26 acres thinned, 4 acres clearcut), operating expenses were \$1,142 per acre harvested. However, the above costs include timber stand improvement and maintenance expenses (plantation, equipment, forestry facilities) for the entire property. With low annual harvest levels, expenses per harvested acre are high. In 1995 logging and management costs were \$292/mbf.

There have been no sales of nontimber products from forestlands. Income from rental of agricultural lands and crop shares provides an average annual income of \$6,000.

The forestland provides important functions for the community that would not be served by liquidation, development, or alternative uses. As such, there are no opportunity costs associated with forestland ownership and management.

Timber Sales

Timber sales began in 1966. Annual sales began in 1987, with annual harvests averaging \$46,743 (gross). In recent years, per acre harvests proceeds (mill delivered values) were \$2,306 (1994) and \$1,419 (1995 includes significant hardwood).



Bare land value has appreciated from \$125 per acre in 1953, to at least

 timber sales for Abbey

\$500.00 today (as zoned for forestry, actual market value probably higher). Timber value on the tract in 1953 was zero. Today stumpage values exceed \$5,500 per acre (10 mbf/acre x \$550/mbf).

The forest management program provides other benefits. It gives year-round employment to at least three community members. This work is both physically and spiritually satisfying to the forestry crew, a factor the community feels is nearly equal in importance to the financial considerations. The Abbey also lets community members, guests, and restaurants use an extensive network of forest trails and several retreat cabins at no charge.

There has been no government cost sharing used for forest management. All forestland is enrolled under the Western Oregon Small Tract Optional Tax (WOSTOT), a program for NIPF owners, which features a low annual property tax based on forest soil productivity for lands dedicated to timber production and no severance tax.

Benefits to the Environment

By maintaining the fields and forests in an attractive and productive state, the Abbey helps preserve the aesthetic values of the area. Since this part of Yamhill County has little nonfarm development, the aesthetic qualities probably add little monetary value to surrounding properties today. As residential development spreads throughout the Willamette Valley, however, the Abbeys productive forests, species diversity, and maturing stands will increasingly act as an ecological benefit to the area. Projected regional population growth promises to increasingly fragment forest areas and convert them to other uses. As forest management intensifies in the region, rotations will probably shorten and diversity diminish. That will make the Abbey Forest more unusual and ecologically valuable in time.

Lessons from the Abbey Forest

Stewardship has always been part of the Abbey values, so striving for it in the forest management Program was automatic. The Abbey has overcome its early forestry difficulties, which stemmed from a lack of expertise in small woodland management techniques within the community and in the field of forestry, and its later conflicts over forest use. The Abbot is excited about sustainable forestry and the prospects of certifying sustainable forestry practices. He sees third-party certification as a way to validate the goals and achievement of the forestry program.

Having a professionally prepared stewardship management plan has been instrumental in reassuring the entire community (and its visitors) that the Abbey is taking a balanced, defensible approach to resource management, and allows the community to make more informed judgments about the future of the forestry program.

The members of Trappist Abbey live within a defined structure, share many basic 'beliefs and philosophies, and have made a long-term commitment to living and working together. This has helped the community adopt SFM. Although the Abbey's structure and the community's values are an advantage for sustainable forestry, 37 individuals still must always agree on a plan, on a year-to-year basis. Annual meetings on each year's harvest plan take place, with a democratic vote, either up or down. The forestry committee's oversight and a concerted effort to educate the community have made this process more effective in recent years.

The Abbey offers several lessons for other private forest owners. The long-term commitment required for forestry is especially true for sustainable forestry. Owners may have to bypass immediate benefits to ensure optimum conditions in the future. Even with a 30-year management history, the Abbey's new management plan recommends conservative harvest levels for the next W years. Restraint now will enable growing stock and sustainable harvest levels to double in the next decade.

Conflicts are inevitable in forestry settings where there are several individuals or groups with differing interests in a piece of forestland. The Abbey with its forestry committee has been able to resolve those conflicts. When crisis became evident, talks involved all members of the Abbey community, as well as individuals from outside the community, in frank discussions of intent and need. Policies based on sustainable forestry were an instrumental part of that process and the solution.