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Abstract

Seven provisions of the federal income tax provide incentives for nonindustrial private forest owners to follow sound management and reforestation practices. Four provisions—treatment of qualifying income as a long-term capital gain, annual deduction of management expenses, depreciation and the Section 179 deduction for income-producing property, and deductions for casualty losses or other involuntary conversions—are available to taxpayers in general. The remaining three provisions—the reforestation tax credit, amortization of reforestation expenses, and the ability to exclude qualifying reforestation cost-share payments from gross income—are specifically for forest owners. In a study conducted cooperatively by the Clemson University, Department of Forest Resources, and the USDA Forest Service, Southern Research Station, nonindustrial forest owners in South Carolina were surveyed by mail to determine whether they were aware of the tax provisions, whether they had made use of them, and their reasons for using or not using each one. Information also was collected on the owners’ demographic characteristics, to test for differences between users and non-users of the provisions. Nearly 80 percent of owners were aware of two provisions available to taxpayers in general—treatment of qualifying income as a long-term capital gain and annual deduction of management costs. Roughly 85 percent of owners who were aware of the provisions used them. Awareness and use of the other provisions available to taxpayers in general was substantially lower. Approximately 55 percent of owners were aware of the reforestation tax credit and amortization provisions, and some 80 percent of owners who were aware of these provisions used them. Awareness and use of the remaining provision available to forest owners—the ability to exclude reforestation cost-share payments from gross income—was lower. No demographic characteristic was associated across-the-board with owner use of the tax provisions. The strongest, forest acreage, was associated with use of four provisions.

Key words: Nonindustrial private forest owners, NIPF, federal income tax, tax provisions

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Introduction

Interest in the effect of the federal income tax on the type and level of management practiced on nonindustrial private forests extends back over a half-century. The Society of American Foresters appointed a committee to study the effect in 1949. One result of the committee’s work was publication of a tax handbook for forest owners in 1953 by the USDA Forest Service (Williams 1964). The handbook was the first in a series of such guides the agency has produced (e.g., Haney and others 2001). A decade later the Forest Industries Committee on Timber Valuation and Taxation began publication of the Timber Tax Journal, which it continued until 1984 (Forest Industries Committee on Timber Valuation and Taxation 1965, 1984).

Over the years a diverse literature has developed on federal taxation of timber income. Most of the work directed toward nonindustrial private forests can be placed into one of five categories: (1) summarized general tax guides for forest owners (e.g., Jones and Jacobson 2000, Bishop 2001), (2) popularized descriptions of how specific income tax provisions affect forest owners, often in question-and-answer format (e.g., Haney 2002, Hoover 2002), (3) analyses of the economic effect of the federal income tax on forest management systems (e.g., Richardson and others 1991, Siegel 1991), (4) analyses of the economic effect of existing or proposed income tax provisions on “typical” forest owners (e.g., Klemperer 1989, Bailey and others 1999), or (5) background papers directed toward policy-makers (e.g., Sampson and DeCoster 1997, Dialog Group on Forested Lands and Taxation 2001).

Surprisingly little work has been done on whether nonindustrial private forest owners actually know about or use federal income tax provisions. Royer (1987) surveyed use of three reforestation incentives—the reforestation tax credit, amortization of reforestation expenses, and reforestation cost-share payments—by forest owners in North Carolina who sold timber between 1981 and 1984. Royer and Moulton (1987) surveyed use of the same three incentives by forest owners South-wide who sold timber in 1983. The motivations that tax incentives provide was one of the topics Bliss and Martin (1990) discussed in intensive interviews with selected forest owners in Wisconsin. And Vericker (1999) surveyed Florida forest owners’ awareness of tax provisions along with other information related to forest management, to identify areas of need for extension and public assistance programs.

This paper reports the results of a study conducted cooperatively by the Clemson University, Department of Forest Resources, and the USDA Forest Service, Southern Research Station. In the study, nonindustrial private forest owners in South Carolina were surveyed by mail to determine whether they were aware of each of seven federal income tax provisions that provide financial incentives for forest owners to follow sound management and reforestation practices, whether they had made use of the provisions, and their reasons for using or not using each one. The seven provisions examined were:

- Treatment of qualifying income as a long-term capital gain;
- Annual deduction of management expenses;
- Depreciation and the Section 179 deduction for income-producing property;
• Deductions for casualty losses or other involuntary conversions;
• The reforestation tax credit;
• Amortization of reforestation expenses; and
• The ability to exclude qualifying reforestation cost-share payments from gross income.

The first four provisions are available to taxpayers in general, while the last three are specifically for forest owners.

Procedure
Data for the study were collected by means of a mailed questionnaire using the Dillman (1978) Total Design Method. A survey packet contained a cover letter, a page with brief descriptions of the seven federal income tax provisions, and a questionnaire. The questionnaire consisted of eight pages of questions, one about knowledge and use of each of the seven tax provisions, and one about demographic characteristics. The demographic characteristics surveyed included acres of forest owned; primary reason for owning forest land; whether the owner belonged to a forest owner organization; whether he or she had a written forest management plan; owner education, occupation, and age; and total household income.

The response categories provided for primary reason for owning forest land corresponded closely to those used by Birch (1996) in his national survey of nonindustrial private forest owners: “Part of my residence,” “Esthetic enjoyment,” “Part of my farm,” “To provide products for farm or home use,” “Recreation,” “Timber production,” and “Land investment.” The response categories provided for owner education, occupation, and age also were similar to those used by Birch.

A total of 1,350 questionnaires was mailed in January, 2001, using a landowner list provided by a national forestry organization. A follow-up survey was mailed in March, 2001, to forest owners who had not responded to the first questionnaire. 506 questionnaires were returned of which 480 were usable, for a response rate of 36 percent.

Results
Chi-square tests were used to compare the demographic characteristics of respondents to this survey with Birch’s (1996) results for the Southeast United States. The results indicate that, compared to those in Birch’s study, respondents to this survey were older, were less likely to be blue collar workers, tended to own more forest acres, and were more likely to own forest land primarily for timber production instead of esthetics or as part of their residence. This finding means the results of this survey may be more representative of owners who are relatively active and financially motivated in their ownership rather than nonindustrial private forest owners in general.

Treatment of qualifying income as a long-term capital gain

Treatment of qualifying income as a long-term capital gain is the first of the four federal income tax provisions examined that are available to taxpayers in general. Under it, income from the sale or disposal of timber that a forest owner holds as an investment or as part of a trade or
business, and which he or she has held for more than one year, can qualify as a long-term capital gain, which, among other benefits, is taxed at a lower rate than ordinary income. The provision was one of the two with the highest levels of owner awareness and use: 77 percent of survey respondents were aware of it, and of those who were aware of it 86 percent had used it (Table 1).

Chi-square tests were used to compare the demographic characteristics of respondents who had used the provision with those of respondents who had not. Respondents who had used the provision tended to own more forest acres than those who had not. They also were marginally more likely to have a written forest management plan (Table 2). Most respondents who had not used the provision believed it did not apply to their situation (39 percent) or that the benefit was too small to bother with (27 percent; Table 3).

Annual deduction of management expenses

Under this provision, a forest owner who qualifies as a material participant in the management of his or her forest can fully deduct costs related to its income potential—for example, the cost of timber management practices, fees paid to consulting foresters, salaries for hired labor, insect and disease control, travel, and insurance—each year as business expenses. An owner who is an investor or who does not qualify as a material participant also can deduct management expenses, but there are restrictions. This provision was the other of the two with the highest levels of owner awareness and use: 77 percent of survey respondents were aware of it, and of those who were aware of it 85 percent had used it (Table 1).

Respondents who had used the provision were more likely to own forest land primarily for timber production or recreation than owners who had not (Table 2). As above, most respondents who had not used the provision believed it did not apply to their situation (42 percent) or that the benefit was too small to bother with (40 percent; Table 3).

Depreciation and the section 179 deduction for income-producing property

Under the first of these related provisions, an owner who holds his or her forest as an investment or as part of a trade or business can depreciate (deduct over a specified recovery period) the cost of equipment—machinery, buildings, or fences, for example—that he or she uses to produce income from their forest. Under Section 179 an owner who holds his or her forest as part of a trade or business can deduct outright up to $24,000 per year (for 2001 and 2002) of the cost of equipment or machinery they acquire to produce income instead of depreciating it. Owners who hold their forest as an investment do not qualify for the Section 179 deduction. Only 50 percent of survey respondents were aware of this provision. Of those who were aware of the provision 67 percent had used it (Table 1).

Respondents who had used the provision were more likely to have a written forest management plan than those who had not. They also were more likely to own forest land primarily for recreation and less likely to own it for esthetics (Table 2). Most respondents who had not used the provision believed it did not apply to their situation (54 percent) or that the benefit was too small to bother with (28 percent; Table 3).
Deductions for casualty losses or other involuntary conversions

Under this provision, if a forest owner's timber is destroyed by a natural or man-caused disaster, is stolen or condemned, or is killed by a severe insect or disease attack, he or she can take a loss deduction equal to the amount of their basis (investment) in the timber that was lost. 59 percent of survey respondents were aware of this provision, and of those who were aware of it 24 percent had used it (Table 1).

Respondents who had used the provision tended to own more forest acres than those who had not (Table 2). Most respondents who had not used the provision believed it did not apply to their situation (62 percent, Table 3).

The reforestation tax credit

The reforestation tax credit is the first of the three income tax provisions examined that are specifically for forest owners. Under it, a forest owner can take a tax credit equal to 10 percent of his or her expenses—to a maximum of $10,000 per year—to establish or reestablish trees. The credit is a dollar-for-dollar reduction in the amount of tax the forest owner owes, up to the $1,000 maximum. Just 54 percent of survey respondents were aware the provision. Of those who were aware of the provision, however, 78 percent had used it (Table 1).

Respondents who had used the provision tended to own more forest acres and to have a higher total household income than those who had not. They also were more likely to be white collar or professional workers and less likely to be retired (Table 2). Most respondents who had not used the provision believed that the benefit was too small to bother with (39 percent) or that it did not apply to their situation (33 percent; Table 3).

Amortization of reforestation expenses

A forest owner can amortize (write off) up to $10,000 per year of his or her expenses to establish or reestablish trees over 8 tax years. If the owner also uses the reforestation tax credit, he or she must decrease the amount they amortize by half of the credit taken. The findings for this provision were nearly identical to those for the reforestation tax credit: 56 percent of survey respondents were aware of it, and of those who were aware of it 80 percent had used it (Table 1).

Respondents who had used the provision tended to own more forest acres than those who had not (Table 2). Most respondents who had not used the provision believed it did not apply to their situation (53 percent) or that the benefit was too small to bother with (25 percent; Table 3).

Exclude qualifying reforestation cost-share payments from gross income

A forest owner can elect to exclude from his or her gross income a calculated part of qualifying government cost-share payments for practices to establish or reestablish trees. It is likely that the full amount of the cost-share payment will be excludable if the owner recently harvested timber from the area. Owner awareness was lower for this provision than for any of the others studied:
42 percent of respondents were aware of it, and of those who were aware of it 70 percent had used it (Table 1).

Respondents who had used the provision did not differ statistically from those who had not on any of the characteristics tested (Table 2). Most respondents who had not used the provision believed that the benefit was too small to bother with (45 percent) or simply did not want to use it (16 percent, Table 3).

**Discussion and conclusions**

The results of this survey appear to be more representative of nonindustrial private forest owners who are relatively active and financially motivated in their ownership than of Southeast United States owners in general. For this reason, the study findings regarding the percentages of owners who are unaware of or elect not to use the seven federal income tax provisions examined can be considered conservative.

Owner awareness of two provisions available to taxpayers in general—treatment of qualifying income as a long-term capital gain and annual deduction of management expenses—is fairly high at just under 80 percent. Among owners who are aware of these provisions, use also is high at roughly 85 percent. But owner awareness of the other provisions available to taxpayers in general—depreciation and the Section 179 deduction and deductions for involuntary conversions—is much lower at 50 to 60 percent. And even among owners who are aware of them, use of these provisions is modest.

Little more than half of forest owners are aware of the three tax provisions intended specifically for them—the reforestation tax credit and amortization provisions and the ability to exclude qualifying reforestation cost-share payments from gross income. Use of the reforestation tax credit and amortization provisions, however, is high among owners who know about them.

No demographic characteristic is associated across-the-board with owner use of the tax provisions. Forest acreage is associated with use of four provisions, primary reason for forest ownership and having a written forest management plan each are associated with use of two provisions, and owner occupation and household income each are associated with use of one provision.

The two most frequently cited reasons for not using tax provisions were, “It doesn’t apply to my situation,” and “The benefit is too small to bother with.” While it is tempting to dismiss these responses as uninformed, there are straightforward situations where each provision would not apply to an owner. Treatment of timber income as a long-term capital gain, for example, would not apply to an owner who has not yet sold timber. Of the provisions specifically for forest owners, the reforestation tax credit and amortization of reforestation expenses would not apply to an owner who lets harvested areas seed in without treatment, and the ability to exclude qualifying reforestation cost-share payments from gross income would not apply to an owner who chooses not to use cost-share payments. It is likely, then, that at least a fraction of the “It doesn’t apply to my situation” responses are valid.
Owners saying, “The benefit is too small to bother with” is more problematic. The response represents a value judgment that the effort involved to take advantage of a provision is not worth the tax benefit that would be received. But the benefits from several of the provisions the response was closely associated with—treatment of timber income as a capital gain, the reforestation tax credit and amortization provisions, and the ability to exclude reforestation cost-share payments from gross income—are substantial.

The findings of this study represent a clear call for additional efforts to make nonindustrial private forest owners aware of beneficial federal income tax provisions. Historically, the tax handbooks, short courses, popularized articles, and extension workshops available to owners have focused on the tax aspects timber production. This approach has yielded the results we have to date, and certainly needs to be continued. But additional approaches aimed at informing owners of the tax implications of other forest uses—non-traditional products, recreation, and stewardship, for example—offer a way to appeal to the interests of additional owners.

Literature cited


Dialog Group on Forested Lands and Taxation. 2001. Keeping forests as forests: recommendations for reducing forest fragmentation on private land in the United States through changes in federal tax policy. Meridian Institute, Dillon, Colo. 25 p


Endnotes

1To qualify as a material participant in the management of his or her forest an owner must meet at least one of six tests for “regular, continuous, and substantial” involvement. For each test, participation includes the hours both the owner and his or her spouse spend managing and operating the forest:

• Participation in the management and operation of the forest for more than 500 hours during the tax year;
• Participation in the management and operation of the forest that constitutes substantially all of such participation during the tax year;
• Participation in the management and operation of the forest for more than 100 hours during the tax year, and no other individual participates more;
• Participation in all “significant participation activities,” including management and operation of the forest, exceeds 500 hours during the tax year (a significant participation activity is a trade or business in which the owner participates for more than 100 hours);
• Material participation in the management and operation of the forest in at least 5 of the last 10 tax years;
• The facts and circumstances of the situation indicate that the owner materially participates in the management and operation of the forest (Haney and others 2001).

The greatest uncertainty about the material participation tests is how the Internal Revenue Service (IRS) will treat an owner who uses the services of a consulting forester or forestry contractor. At least in the early stages of an examination, the IRS may consider that, under the facts and circumstances test, an owner who uses a consultant or contractor does not materially participate in the management of his or her forest, even if they clearly reserve and exercise final authority in making management decisions. For this reason, tax planners typically recommend that owners ensure they qualify as material participants by meeting the terms of one of the first four tests listed in years they do not use a consultant or contractor, so they will qualify under the terms of the fifth test in years that they do (Jones and Jacobson 2000).
Table 1. Respondent awareness and use of beneficial federal income tax provisions.

<table>
<thead>
<tr>
<th></th>
<th>Long-Term Capital Gain</th>
<th>Deduct Management Expenses</th>
<th>Deprecation Section 179 Deduction</th>
<th>Loss Deductions</th>
<th>Reforestation Tax Credit</th>
<th>Reforestation Amortization</th>
<th>Exclude Cost-Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aware of the provision</td>
<td>77%</td>
<td>77%</td>
<td>50%</td>
<td>59%</td>
<td>54%</td>
<td>56%</td>
<td>42%</td>
</tr>
<tr>
<td>Had used the provision</td>
<td>86%</td>
<td>85%</td>
<td>67%</td>
<td>24%</td>
<td>78%</td>
<td>80%</td>
<td>70%</td>
</tr>
<tr>
<td>Had not used the provision</td>
<td>14%</td>
<td>15%</td>
<td>33%</td>
<td>76%</td>
<td>22%</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>Not aware of the provision</td>
<td>23%</td>
<td>23%</td>
<td>50%</td>
<td>41%</td>
<td>46%</td>
<td>44%</td>
<td>58%</td>
</tr>
</tbody>
</table>

Table 2. Results of Chi-square tests for differences in characteristics between respondents who were aware of and used beneficial federal income tax provisions and respondents who were aware of but did not use the provisions, $\alpha = 0.05$.

<table>
<thead>
<tr>
<th>Area owned</th>
<th>Deduct Management Expenses</th>
<th>Deprecation Section 179 Deduction</th>
<th>Loss Deductions</th>
<th>Reforestation Tax Credit</th>
<th>Reforestation Amortization</th>
<th>Exclude Cost-Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres of forest owned</td>
<td>Significant</td>
<td>---</td>
<td>Significant</td>
<td>Significant</td>
<td>Significant</td>
<td>Significant</td>
</tr>
<tr>
<td>Primary reason for owning forest land</td>
<td>---</td>
<td>Significant</td>
<td>Significant</td>
<td>---</td>
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<tr>
<td>Belong to a forest owner</td>
<td>---</td>
<td>---</td>
<td>---</td>
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<td>---</td>
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</tr>
<tr>
<td>organization</td>
<td>---</td>
<td>---</td>
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<tr>
<td>Have a written forest</td>
<td>Significant</td>
<td>---</td>
<td>Significant</td>
<td>---</td>
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</tr>
</tbody>
</table>

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Table 3. Reasons respondents who were aware of beneficial federal income tax provisions cited for not using the provisions.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Long-Term Capital Gain</th>
<th>Deduct Management Expenses</th>
<th>Deprecation Section 179 Deduction</th>
<th>Loss Deductions</th>
<th>Reforestation Tax Credit</th>
<th>Reforestation Amortization</th>
<th>Exclude Cost-Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>It's too complicated</td>
<td>5%</td>
<td>6%</td>
<td>4%</td>
<td>8%</td>
<td>2%</td>
<td>3%</td>
<td>11%</td>
</tr>
<tr>
<td>The benefit is too small to bother</td>
<td>27%</td>
<td>40%</td>
<td>28%</td>
<td>16%</td>
<td>39%</td>
<td>25%</td>
<td>45%</td>
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<td>with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It doesn't apply to my situation</td>
<td>39%</td>
<td>42%</td>
<td>54%</td>
<td>62%</td>
<td>33%</td>
<td>53%</td>
<td>14%</td>
</tr>
<tr>
<td>I don't want to use it</td>
<td>2%</td>
<td>0%</td>
<td>4%</td>
<td>2%</td>
<td>4%</td>
<td>0%</td>
<td>16%</td>
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