

MAINE STATE LEGISLATURE

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**REPORT OF THE
FOREST LANDS TAXATION COMMISSION**

**to the Second Regular Session
of the 113th Legislature**

January 15, 1988

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STATE OF ALABAMA
AUGUST 1988

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INTRODUCTION

LD 1853 of the 113th Legislature created the Maine Commission on Forest Land Taxation, whose purpose was:

"to examine the present aggregate level of taxation on Maine forest land and to determine whether present tax policies impede long term investment needed to sustain the forest economy of the state."

The Commission was directed by the Legislature to:

"...review the total tax burden affecting forest land ownership and management, the relationship between taxation and management activity, and whether combined federal and state tax policies act to encourage or discourage long-term forest management and maintenance of a stable land base."

The Commission examined a wide number of topics concerning taxation and the forests of Maine, including the tree growth tax, the commercial forestry excise ("forest fire") tax, and the impacts of recent federal tax reform.

This Report of the Commission is divided into three sections:

1. Findings
2. Policy Goals for Taxation of Forest Land
3. Recommended actions

1. Findings

Maine is the most heavily forested state in the nation, with more than 85% of its land covered by commercial-grade forest. Maine's forests provide the raw material for industries that produce more than 40% of Maine's total manufactured products and employ more than 30,000 people in wood harvesting and manufacturing. Maine's forests are also a major source of recreation and retreat for its citizens and an important part of the State's multi-billion dollar tourism industry. It is home to one of the largest and most diverse wildlife populations in the eastern United States.

But the forests that have sustained Maine throughout the state's history have been changing over the past twenty years, and the pace of change is certain to accelerate dramatically over the next twenty. A small sample of the kinds of changes that are occurring includes:

- Maine's forests are overmature- they have too many old and young trees and not enough "middle-aged" trees , especially in the most commercially important species, to meet the needs of the forest products industries of Maine.
- Softwoods (spruce, fir, pine) have been the mainstay of the forest products industry throughout Maine's history, but these species are the most seriously affected by declining growth rates. The volume of spruce declined between 1981 and 1986 by 14%, while the volume of fir declined by 42%. The trends in sawtimber have been similar.¹
- Hardwoods are growing in Maine at rapid rates, replacing much softwood acreage. The current uses of hardwoods are substantial, but Maine's traditional industries have not used hardwoods to anywhere near the degree that they have softwoods. Maine's traditional forest products industries (lumber and wood products, pulp and paper products) will have to rely on hardwoods to a much greater degree in the future, and they will be competing for supply with the newly emergent wood energy industry.

¹ Growing stock are all trees except those that are rough, rotten, or dead. Sawtimber is trees suitable in size and quality for sawing into lumber.

- The end of log drives in the 1970's, combined with the need to salvage budworm-damaged trees, resulted in a significant expansion of the road networks in the Maine forests. What was once wilderness is now accessible to the point where, in 1985 there were nearly one million visits to Maine's forests for recreation. That is nearly one visit for each resident of Maine.

- Economic and population growth, particularly in southern Maine, has put ever increasing pressure on forest land for conversion into residential or commercial development. This pressure is especially strong in the rapidly growing suburbs around the major cities, whose share of the state's population increased by nearly 15% from 1976 to 1986.

The key to the future of the Maine forest— and of those who depend on it— is how well the forest is managed now and in the future. Investments must be made to increase both the quantity and quality of wood grown in all parts of Maine's forests and in most of the principal species.

"Managing the forest" is a broad term that encompasses many different activities. In its simplest form, management means caring for the land— seeing that boundaries are maintained and that harvests of trees are professionally supervised so that natural regeneration occurs and so that there is a minimum amount of damage to the soil, water, and remaining trees. More intensive management involves controlling the regeneration of cut-over areas and actions to improve both the quantity and quality of timber, through such actions as planting, suppressing competing species with mechanical or herbicide treatments, thinning stands to achieve optimum density, application of pesticides, etc.

It is these more intensive management activities that will be the key to the Maine forest's future. Properly done, these investments can triple or even quadruple the amount of wood produced on an acre.²

² Unmanaged stands produce on average 1/4 to 1/3 cord per acre per year. According to the Department of Conservation, intensive management can raise this to 1 cord per acre per year on average. (Actual figures vary widely with forest type, site characteristics, etc.)

Taxation of forest land is a key part of the State's policy towards the forests, and that policy, like the forests themselves, has been undergoing dramatic changes. There are three major elements to Maine's forest tax policy: the property tax, individual and corporate income taxes (including estate taxes), and the commercial forestry excise tax. Each has unique impacts on the forests and the decisions of forest landowners.

THE PROPERTY (TREE GROWTH) TAX

Forest land, like all other land, is subject to a property tax. However, there are special characteristics of forest land that make the traditional method of assessing the value of property undesirable for use in valuing forest land. There are two fundamental problems with the real property tax and its application to timberland. The first is that the property tax is based on the erroneous assumption that both land and timber should be taxed in the same manner. The second is that the assessment of timberland using its market value in uses other than growing trees results in a tax burden that is sometimes too high to be supported by timber uses.

Forest land, like any crop land, derives its value from the amount of crop income it produces. In the case of farmland, where a crop is produced annually, the property tax is based only on the land. The value of maturing crops is not subjected to an annual property tax (nor is crop income subjected to an excise tax.) In contrast, the property tax on timberland is based on both the land value and the timber value. As a result, this is a form of double taxation on timberland.

Timber is thought of as both a capital asset and as real property because it takes a long time to mature and because it is attached to the ground. Most other crops are not classified as either real property or as a capital asset; rather they are considered inventory. A maturing tree is an unfinished product— a good in process, and thus the correct classification for property tax purposes is that the land is the capital asset (since it "produces" the timber), while timber is the product, held in inventory on the land until it is sold. Inventory has not been taxed in Maine for several years. Yet its inclusion in the property tax amounts to taxing as property both the asset and its product.

Another form of double taxation occurs because all timberland carries a permanent debt against each acre until that particular acre is harvested. Unlike potatoes or corn, which

generate a cash income on each acre planted each year, the timber crop takes many years to produce a cash crop. It is during this period that money must be "borrowed" from other income sources— whether other timberland, salaries or business income. In addition, to accurately account for the funds borrowed to pay interim property taxes, an interest charge must be included. This "borrowing" is an integral part of the investment in timberland. Because the property tax is assessed on the basis of the selling price of the timber, the property tax includes these costs in its valuation, and as costs cumulate over time, each dollar of cost is taxed many times.

The result of these two "double taxation" flaws is that property taxation that includes both land and timber on the same basis as other assets overstates the real economic value of the timber and the costs of owning timberland. Tax costs are thus greater than they should be to assure that forest land is used as productive forest.

The use of sales data to determine the "fair market value" of timberland for property tax purposes raises the second set of problems with the property tax. The most common way to determine what the market value of an item is is to ask, "what does something similar sell for?" Sales of "comparable" property are thus the basis on which property taxes are assessed. Sales data represent the combined value of both land and timber, and it is not possible for assessors to distinguish between the timber inventory values and the land values, leading to the problems noted above.

Sales data also does not distinguish between the uses to which the land will be put by the purchaser. Forest land purchased to be used as timberland or for development as residential or commercial property are reported in the same manner in sales statistics. But the price paid for land when uses other than timber growth are planned are often much higher than prices paid for land to grow trees. When these higher values are applied to forest land as the basis for property tax valuation, that land is excessively burdened by these values. Owners are encouraged to prematurely harvest timber and, in some cases, the conversion of land from productive forest to non forest uses occurs, or is speeded, in order to pay the higher tax costs.

A related problem is the practice of municipalities to assign values derived from uses other than timber production to timberland. Assessing practices also often assign higher values to timberland on roads with the idea that this land is better suited to development. It is not uncommon for an arbitrary acre of a timber tract to be assigned an

(undeveloped) house lot value. Nor is it uncommon for a valuation formula to assign road front values, shore front values, or other non-timber values for the first 10 acres, another value for the next 10 acres and so on until finally assigning a residual value for the final acres. The result of these practices is to artificially inflate the value of land growing timber. (For that matter since these practices are common to all agricultural and open land, these land values are also inflated.)

There is no reason for the arbitrary determination that growing timber is not the best use of the land. Most categories of taxable real property, house lots, houses, commercial lots and buildings, are valued on the basis that their current use is their highest and best use. This valuation is quite correct. Timberland is no different. The valuation of timberland on the basis that timber production is the highest and best use of that land is logical and consistent with the treatment of other property.

Maine has long recognized these defects in the property taxation of timberland. Maine was the first state to recognize in statutory policy that traditional property taxation had adverse consequences for the forest and attempt to correct its worst impacts on forest management investments. In 1953 the Legislature enacted the "Chase Law", which established a statutory policy that assessors use the forest productivity of the land as the basis for property tax valuations.

The Chase Law's simple statement of policy was inadequate for the task of changing actual assessing practices; it would take nearly twenty years for the State to substantially alter the property taxation of forests. This was done in 1972 with the enactment of the "Tree Growth Tax". This tax has been, with numerous modifications, the basis for the taxation of forest lands in Maine for the past fifteen years.

The Tree Growth Tax has been the subject of much debate, and even more misunderstanding, over the past fifteen years. It is calculated using a somewhat complex formula³, but the basic idea is quite simple: the tree-growing capacity of each parcel of land is the value on which property taxes are assessed. This capacity is determined as a function of current stumpage prices, average annual net growth rates (less a discount factor), and a method of adjusting the income to be received in the future from the sale of

³ See Appendix A for a description of the formula and the process used in calculating tree growth values.

timber to present values. The property tax levied on each parcel is then the town's general tax rate multiplied by this value.

Table 1 shows the 1988 values for tree growth in Maine. As this table shows, the Tree Growth Tax is adjusted by species type and by county in order to adjust for variations in timber markets and net growth rates throughout the state.

This type of tax has several desirable features from the perspective of forestry investments: it encourages forest management and forest uses by avoiding the problems of the *ad valorem* property tax, it encourages reforestation of cut-over areas, and does not penalize poorly stocked land.⁴

Table 1
1988 Tree Growth Valuations
(per acre)

| County | Softwood | Mixed Wood | Hardwood |
|---|----------|------------|----------|
| Aroostook | \$81.80 | \$54.40 | \$34.30 |
| Androscoggin Cumberland Sagadahoc York | 172.90 | 122.50 | 76.30 |
| Hancock Penobscot | 71.00 | 52.60 | 36.70 |
| Kennebec Knox Lincoln Waldo | 126.10 | 83.30 | 64.10 |
| Franklin Oxford | 96.30 | 65.40 | 59.00 |
| Piscataquis Somerset | 99.80 | 67.90 | 50.20 |
| Washington | 61.90 | 38.20 | 31.20 |

But, the Tree Growth Tax is not simply a method of calculating the value of timberland. The Tree Growth Tax Law was enacted following a 1970 constitutional amendment that permitted "current use" values of forest land⁵. This amendment was

⁴ See Appendix B for a discussion of the different approaches used in taxing forest land and their advantages and disadvantages.

⁵ Article IX, Section 8 of the Maine Constitution requires that "All taxes upon real and personal estate assessed by the authority of this State, shall be apportioned and assessed equally, according to the just value thereof." Thus a constitutional amendment was needed to permit current use valuation. The amendment permitted such valuation not only for forest land but for farmland and open space land as well.

designed to address the increasing concerns for lands at the margin of development being taxed so heavily that they would be converted from their traditional uses simply to pay the taxes. The Tree Growth Tax is thus also the means by which the Constitutional provisions permitting current use taxation is implemented in the forest.

These points are important and bear repeating: The Tree Growth Tax is both a method of more properly assessing forest land to take into account the unique characteristics of forests, and, a method of current use assessment. The two purposes are, of course, complementary, but in a real sense the Tree Growth Tax is a means of "killing two birds with one stone", thus overcoming both of the major defects of the property tax on forest land..

However, the Tree Growth Tax has been the subject of much controversy over the years, and its defects should be acknowledged. These include:

- Loss of revenues to municipalities. Although the majority of tree growth land is in the unorganized territory, over 3.6 million acres are located in municipalities. The difference in valuation between tree growth and *ad valorem* assessment results in reduced revenues to municipalities. Estimated lost revenues in 1987 were \$5 million. The state has reimbursed part of this loss at the rate of approximately 15 cents per acre⁶ or a total of about \$540,000 per year. Thus, lost revenues remain a concern for many municipalities.

- Tax avoidance From the beginning of current use valuation in Maine, there has been concern that landowners would claim current use status simply to reduce their tax bills while not actually maintaining the land for its intended purpose. This concern led to the inclusion of stiff penalties in the constitutional amendment permitting current use valuation for changing the use of land away from its "current use". There have also been amendments to the tree growth tax requiring that those who elect tree growth treatment demonstrate that they are actively managing their land for timber growth. Despite these penalties, resentment over the lower taxes on forest land still exists.

⁶ The law actually calls for reimbursement of 90% of the tax lost when the tree growth law went into effect in 1972 or 15 cents per acre, whichever is greater. The 15 cents figure has been used for some time. There is a long-standing argument over whether reimbursement was owed to municipalities for the difference between tree growth and *ad valorem* valuations at the time that tree growth was enacted or the difference as measured each year thereafter.

Ironically, the size of the penalties themselves may discourage some landowners who are uncertain as to which use they wish to put their land to from using tree growth incentives, thus reducing the amount of forest land covered by the tree growth tax.

- Technical problems with the tree growth formula. There are a number of inconsistencies and economic flaws in the formula used to calculate the tree growth value. Countywide averages of growth and price are imprecise reflections of actual site values. The formula uses gross income (stumpage prices) to calculate values, when net income is the proper measure of economic value. The capitalization rate (the discount rate used to adjust for future and present values) is difficult to estimate, and the tax is very sensitive to it. Compromises have had to be made in each of these areas to avoid making administration of the tax too cumbersome, but the problems remain.

INCOME TAXES

The Federal Tax Reform Act of 1986 has dramatically altered the way income from forest ownership is to be taxed, just as it has for other types of income. Changes affect individual and corporate taxes at both the federal and state levels. Some of the most important tax provisions affecting forest ownership were eliminated or reduced under the new law, although some provisions favorable to timber were retained. The net effect of these changes is uncertain, but probably negative, especially if no action is taken at the State level to adapt to some of the new provisions.

The major changes of the federal tax reform act affecting timber can be briefly summarized as follows:

1. Elimination of Capital Gains for Individuals. Under the old law, individuals could exclude 60% of the amount of any long term⁷ capital gain from taxation. This means that capital gains, such as from the sale of timber, would be taxed at only 40% of the marginal rate that would otherwise apply. For example, if a landowner sold \$100 worth of timber and the tax rate on that amount was the old top rate of 50%, the tax payer could exclude \$60 from taxation, and pay the 50% only on \$40, a tax of \$20, or an effective tax

⁷ Assets held for more than six months. Note that "capital gains" treatment applied to any capital asset, including stocks, houses, land, etc., not just timber.

rate on the whole \$100 gain of 20%. Under the new law, the top marginal rate will be lowered (for most taxpayers) to 28% so the elimination of capital gains treatment means an increase in taxes at the federal level from 20% to 28%⁸. This would be coupled with an increase in state taxes from 4% to 10%. A summary of the changes in rates is contained in table 2.

Table 2
Comparison of Changes in Capital Gains Taxes
(Marginal Rates - Married Filing Jointly)

| Taxable Income | 1986 | | 1988 | 1986-88 | |
|-----------------------|-------------|-------------------|-------------------|------------------------|-----------------------|
| | Top Bracket | Capital Gain Rate | Capital Gain Rate | Absolute Rate Increase | Percent Rate Increase |
| <u>FEDERAL</u> | | | | | |
| \$30,000 | 25% | 10% | 15% | 5% | 50% |
| \$40,000 | 33 | 13 | 28 | 15 | 45 |
| \$50,000 | 38 | 15 | 28 | 13 | 34 |
| \$75,000 | 42 | 17 | 28 | 11 | 26 |
| \$125,000 | 49 | 20 | 28 | 8 | 16 |
| \$175,000 | 50 | 20 | 28 | 8 | 16 |
| <u>MAINE</u> | | | | | |
| \$30,000 | 8% | 3.2% | 8% | 4.8% | 150% |
| \$40,000 | 9.2 | 3.7 | 9.2 | 5.5 | 150 |
| \$50,000 | 10.0 | 4.0 | 10 | 6.0 | 150 |

2. The Investment Tax Credit. A second major change is the elimination of the investment tax credit, a direct reduction of tax owed equal to a percentage of the costs of certain types of new investments. While this change did not affect forestry investments *per se*, it does affect the tax treatment of all machinery and equipment purchases for the forest products industry and thus affects the costs of logging, transportation, etc. as well as the costs in the primary markets for timber (sawmills, pulpmills, etc.)

3. Treatment of Timber Growing Costs and the Passive Loss Rules A major change affecting forest landowners is a new set of rules governing when the costs of forest investment and management can be deducted. In general, the costs of investing in most assets that return income over a long period of time must be "capitalized"—that is deducted in the future against the income generated from sales of timber.

⁸ Top marginal rates. For some taxpayers, a top marginal rate of 33% will apply through 1989.

Timber has historically received more favorable treatment than it does under the new tax law. Forest land owners have been permitted to deduct some management costs when they are incurred, rather than "capitalizing them", that is recovering them over a long period of time. This is obviously preferable; if an owner spent \$100 on management in a year, he could deduct it in the same year rather than waiting for as long as 30, 40, or more years until income is realized and the deduction can be made. But the rules are now substantially more complicated.

Some provisions favorable to forest land owners were retained in the new law: Silviculture expenses, including interest and taxes on those expenses, will still be fully deductible in the year incurred. In addition, cost depletion (a method of deducting certain land costs over) is also retained.

But for most other expenses of land holding, the new law divides all forest owners into three groups:

- *Active Businesses.* These are businesses where the owner "materially participates" on a "regular", "continuous", and "substantial" basis.
- *Passive Businesses* These are businesses that are not "active" in the above sense.
- *Portfolios* These are strictly investors in forest land who are not engaged in the business of forest ownership except as part of an investment portfolio.

The changes in the law limit the deductibility of expenses, including losses from sales, depending on the kind of owner you are. The following table summarizes these rules. In general, "active business" income is the best category for an owner to be in, since all expenses are completely deductible in the year incurred; in contrast, "portfolio income" is the worst position to be in, since the limitations on deductibility are the most severe.

This confusing situation is made even worse by the fact that the Congress left the task of defining each type of ownership to the IRS to provide in regulation, a task that could take years to accomplish.

Table 3
Treatment of Expenses under 1986 Tax Reform Act

| Type of Expense | Portfolio | Type of Ownership | |
|--------------------------|--|---|--|
| | | Passive Business | Active Business |
| Management Expenses | Deductible only if they exceed 2% of adjusted gross income | Deductible only to extent that when combined with all other passive costs they do not exceed passive income | Fully deductible against all sources of income |
| Property and other taxes | Deductible against other income | Same as management expenses | Same as management expenses |
| Interest | Deductible up to up to extent of net investment income | Same as taxes (cannot offset other interest income) | Same as management expenses |

The effects of these many changes in federal law on Maine's forests were considered in some detail at a conference of forestry and tax experts sponsored by the Department of Conservation in April, 1987. The general conclusion about these changes on the value of timber ownership and the incentives for forest management was that there was extreme uncertainty, but that the net effects were probably negative.

The elimination of capital gains, and the consequent increase in the tax rate on timber sales was viewed as the single most important, and most adverse, change. The reduced income from sales will in turn reduce incentives to manage and own timberland. The effect will be most serious on nonindustrial private land owners, particularly small land owners. The retention of conventional expense treatments was not considered by the participants sufficient to offset these disadvantages.

The "passive loss" rules were also generally viewed as negative, primarily because of the limitations on deductibility of expenses. However, some commenters pointed out that the best tax deal will be for those who are active managers, and this may encourage many passive forest owners to become more active in management in order to qualify as "active businesses". Others noted that these rules apply to all investments, and may hurt other kinds of investments more than forestry, thus making forest land a more competitive investment.

4. Elimination of Income Averaging. Income averaging was a tax calculation technique that was beneficial to small landowners whose land was harvested periodically, thus creating a large increase in income during those harvested years. Income averaging reduced the impact of sudden changes in income levels by allowing taxpayers to calculate taxable income over more than one year.

The Department of Conservation conference also clearly found that the effects of federal tax reform will vary greatly among taxpayers depending on individual circumstances. Trying to gauge the magnitude of the overall effect is thus extremely difficult.

One other aspect of income tax that deserves attention is the estate tax. This federal tax can have quite severe consequences for forest land when the land is transferred intergenerationally. The federal estate tax is structured so that a portion is collected by the states, but if the state chooses not to collect its share, that share is collected by the federal government and there is no reduction in tax burden. Thus such problems as do exist with the estate tax with respect to timber are currently beyond the reach of the state to address.

However, current federal tax policy should not be assumed to continue. The state estate tax credit is already a target for elimination in the federal government's search for additional revenues. A bill to repeal the credit is currently being considered by the U.S. House of Representatives. Should the credit be repealed, the estate tax would effectively increase substantially unless the State repealed its own tax. Whatever the problems with the current system, the repeal of the state tax credit would force Maine to choose between onerous taxes on forest lands, and an increasing rate of conversion to other uses or loss of substantial revenues (\$14 million in 1986). This should be avoided by encouraging Maine's representatives in Washington to oppose any change in the state estate tax credit.

COMMERCIAL FORESTRY EXCISE TAX

The commercial forestry excise tax is a special tax of 29 cents per acre (up from 24 cents per acre in 1986) assessed on all forest land held in 500 acre or greater ownerships. The revenues from this tax are used to fund approximately one half of the annual state fixed

costs for forest fire protection (about \$3 million of a total state budget for forest fire control of \$ 6 million in 1986).⁹

The commercial forestry excise tax is the latest in a long line of strategies dating back to the latter part of the 19th century to fund the control of forest fires. The current tax is the result of two major forces: the dissolution of the Maine Forestry District in 1982 and its replacement in 1983 with the Forest Fire Suppression Tax, followed by a successful lawsuit, in which the Maine Supreme Court struck down the original tax as unconstitutional.

Since 1947, and the great fires of that year, the Maine Forest Service has had lead responsibility for fighting forest fires in the unorganized territory, while municipalities have had lead responsibility within their boundaries. Each agency backs up the other as circumstances warrant. The original forest fire suppression tax levied a per acre tax on owners of parcels larger than 100 acres; this was changed to ownerships larger than 500 acres (with the first 500 acres being exempt) in 1985.

The lawsuit brought against the forest fire suppression tax claimed that it was a property tax which was improperly assessed since it was not based on the value of the property, as the Maine constitution requires of all property tax. The Law Court agreed with this contention, forcing the Legislature to make modifications in the law.¹⁰ Wishing to keep the per acre tax structure, the only form of tax that would be acceptable would be an excise tax, or a tax levied on the "privilege of conducting of commercial forestry".

This is how the current tax is defined. In order to determine who is actually engaged in "commercial forestry", the 500 acre limitation was established as a cutoff point.

⁹ Forest fire costs in Maine are paid by a combination of state, federal, and local sources, with State government responsible for the majority of costs. The State share of fixed costs (equipment training, planning, observation, etc.) is funded one half from the general fund and one half from the excise tax. The federal government also contributes funds each year as part of a national cost share program. Local governments are responsible for fighting smaller fires and for providing first response to larger fires in the organized territory. The costs of fighting individual fires are paid by the unit of local government, including the unorganized territory's municipal cost component, up to a limit of 1.5% of state valuation. Over that limit, local governments are "held harmless" by the State assuming costs.

¹⁰ Eastler v. State Tax Assessor 499 A 2d 921.

That is, all owners of 500 acres or more of timberland are automatically assumed to be engaged in "commercial forestry" and therefore subject to this excise tax.¹¹

The result is that only those landowners with more than 500 acres pay for one half of the State costs of fighting all forest fires in the state. In fact, because of the way ownership is defined for the tax, it is possible for someone to own different minority interests in a large number of parcels totaling more than 500 acres and thus escape the tax.¹²

The result is a distribution of taxes for forest fire control that bears little relationship to either the benefits received or to any other generally recognized principle of taxation. As shown in figure 1, the costs for forest fire control are paid through a complex system under which some taxpayers pay three times for forest fire control. This is a system whose underlying rationale is difficult to discern, let alone justify.

| Who Pays For the Fixed Costs of Forest Fire Control? | | | |
|--|--------------|--------------------|--------------------------------|
| | General Fund | Local Property Tax | Commercial Forestry Excise Tax |
| Organized Municipalities | < 500 acres | YES | NO |
| | > 500 acres | YES | YES |
| Unorganized Territory | < 500 acres | YES | NO |
| | > 500 acres | YES | YES |

This is a clear misallocation of tax burdens, since it forces the owners of 61% of Maine's forest land to pay the full costs of the non-general fund portion of the fire budget. Such a misallocation inevitably places a heavy burden on forest ownership and on forestry investments in those lands where the tax is applied.

¹¹ The exact number of owners is very difficult to determine. The tax is levied on "ownerships of more than 500 acres, and records are kept in terms of the number of accounts and the number of bills mailed out. In 1987, there were 623 accounts receiving 1,154 bills. How many people this represents depends on the number of accounts that are corporate, that represent joint tenants, and other factors about which information is not collected.

¹² Such a provision is necessary to administer the tax, but does contribute to the inequities of the tax.

Finally, although the excise tax may be the simplest of the successors to the Maine Forestry District Tax, the tax is still administratively cumbersome. Figure 1 illustrates the process by which the tax is calculated, showing how each year's tax is actually the result of a process that stretches over three fiscal and four calendar years.

Figure 1

COMMERCIAL FORESTRY EXCISE TAX CALENDER OF EVENTS

| CALENDAR YEAR | 1ST QUARTER JAN FEB MAR | 2ND QUARTER APR MAY JUN | 3RD QUARTER JUL AUG SEPT | 4TH QUARTER OCT NOV DEC | STATE FISCAL YEAR |
|---------------|--|---|---|---|-------------------|
| CY86 | | | D.O.C. BUDGET FOR FY 88-89 SUBMITTED TO GOVERNOR | D.O.C. CONFIRMS FIRE CONTROL COSTS FOR FY 88 TO LEGISLATURE | FY87 |
| CY87 | GOV'S BUDGET FOR FY 88 & 89 SUBMITTED TO LEGIS | LEGISLATURE APPROVES BUDGET & FIRE CONTROL FY 88 & 89 | TAX ASSESSOR GETS AMOUNT TO COLLECT FOR FY 88 FROM D.O.C. | D.O.C. CONFIRMS FIRE CONTROL COSTS FOR FY 89 TO LEGISLATURE | FY88 |
| CY88 | OWNERS CERTIFY OWNERSHIP FOR CY 87 * | BILLS FOR FY 88 SENT TO OWNERS TAX FOR FY 88 PAID FOR CY 87 OWNERSHIP ** | LEGIS APPROVES FIRE CONTROL COST FOR FY 89 TAX ASSESSOR GETS AMOUNT TO COLLECT FOR FY 89 FROM D.O.C. | | FY89 |
| CY89 | GOV'S BUDGET FOR CY 90-91 SUBMITTED TO LEGIS OWNERS CERTIFY OWNERSHIP FOR CY 88 | BILLS FOR FY 89 SENT TO OWNERS TAX FOR FY 89 PAID FOR CY 88 OWNERSHIP | | | FY90 |

* TAX FOR FY 89 THAT IS PAID IN CY 88 IS BASED ON OWNERSHIP OF CY 87

** TAX FOR FISCAL YEAR PAID TEN MONTHS INTO THE FY THAT THE COSTS OCCUR. THUS PAYMENT FOR SERVICES OCCURS AFTER 83% OF THE SERVICE IS RENDERED. TAX IS PAID BASED ON OWNERSHIP OF THE PRIOR YEAR.

2. Policy Goals

In order to determine what changes, if any, are needed in Maine's forest lands taxation policy, it is first necessary to set some basic directions for tax policy. These directions must come from two sources: general principles of fair and equitable taxation that should form the basis for any tax policy, and, second, the special characteristics of forests that must be taken into account.

1. General Principles

- Tax Equity

There are three general principles of tax equity:

Those who receive benefits should pay a fair share of the costs. When government services are provided in greater proportion to one group than others, that group should pay a greater share of the costs.

Horizontal Equity Taxpayers who are similar in income and purchasing power should be treated similarly under the tax code.

Vertical Equity Taxpayers who are different as to income and purchasing power should be treated differently under the tax code in a manner that reflects these differences.

- Efficiency.

A tax should be well understood by taxpayers and be capable of being anticipated in future economic decisions. Individuals and corporations should be able to incorporate state and local taxes into their long term business and investment plans. A tax system should impose a minimum of administrative burden upon the taxing jurisdiction and the taxpayer. In addition, the tax system should not impose unnecessary compliance costs, nor create substantial incentives for noncompliance.

A tax system should interfere only minimally with the operation of the market, and should have as little impact as possible on prices and economic behavior. A tax at the state

or local level should not adversely affect the ability of a business operating within the taxing jurisdiction to compete with businesses operating outside the taxing jurisdiction.

- Revenue Adequacy

A tax system should be capable of providing the taxing jurisdiction with a stable source of revenues to finance its operation and activities. The revenues from a tax system should grow in direct proportion to the demand for public services and hence to the revenue requirements of the taxing jurisdiction.

- Accountability

A tax system should be the product of explicit legislative action and the result of public debate and discussion. The structure of the tax system, the rate of taxation, the amount of revenues collected, and the impact of the tax system on individual taxpayers and businesses should be well-known and widely understood. Further, all changes in any of a tax system's structure, rate, revenues, or impacts, should occur only as a result of explicit legislation.

2. Specific Goals for Forest Land Taxation

Beyond the general principles of taxation there are a number of specific policy goals that should be applied in setting policy for forest lands. These goals implicitly recognize that taxes are a normal cost of business to the forest landowner and that taxes by themselves do not determine the level of management investment or types of ownership; market conditions are the ultimate determinants of the overall trends in forest land ownership and timber management. But taxes are an important, sometimes critical, influence on the future of the forest, since they greatly affect what decisions will be made at the margin.

Thus taxes on forest land should:

- Recognize the special characteristics of forestry investments

The first principle of taxing forest land is that forest land has economic features that distinguish it from other assets. These must be recognized in designing tax policy.

The most important of these is the long time period between investment and income. The "rotation period" is the number of years between when the timber on a site is cut and when that site can be cut again. For most of Maine's commercially important species this period ranges from 40 to as long as 80 years. An asset that produces income only once or twice a century is very sensitive to costs, particularly costs incurred in the early years.

A second characteristic, one that forest land has in common with other land uses such as agriculture, is that the income produced by the land may be economically attractive, but the long term nature of the income opportunities may be overshadowed by development pressures that offer faster returns. Taxation adds to the carrying cost of land, and thus increases the cost of waiting for the income from harvesting, thus providing an incentive to take quick returns and move land out of productive forest uses.

- Recognize the special needs for investment of the Maine forest

Wherever one looks at the Maine forest— north or south, east or west— and whichever species group or industry one examines— hardwoods or softwoods, lumber or paper— it is clear the Maine's historically abundant forests are no longer able by themselves to supply the quantity and quality of timber that is needed to sustain the vital forest products industry of the state. Professionals in the forestry community are unanimous that the only way Maine can sustain its current industry, let alone have any chance for future growth, is to more actively, more intensively manage its forest resources.

Maine is not unique in this aspect. Forests throughout North America have not been managed to their optimum levels. Landowners, industries, and governments in both the United States and Canada are struggling to find ways to improve forest management.

But Maine stands out among principal forest regions because of the forces of:

- Damage to the forest's productivity done by the spruce budworm.
- Growth in recreational demand.
- A dramatic increase in harvesting wood for biomass energy generation.
- A huge increase in development pressures.

This combination will put more intense and varied pressure on the Maine forest than on other forested areas.

- Not disadvantage forest land relative to other economic activity

Forest land is often seen as an uneconomic investment, one with high costs, long carrying periods before returns are realized, the risks of fire or insect damage. The problems of small woodlot owners, who have small "portfolios" of forest land from which to derive income, and often relatively small income from other sources are frequently cited. To be sure, a forest land investment is a risky, long-term investment, but forest land can also be a sound long term investment, with returns that are quite competitive with investments of comparable length and risk.

Tax policy is a major variable affecting forest lands' ability to provide competitive returns. This is true whether one is comparing owning forest land to owning stocks and bonds, or whether one is comparing the ownership of forest land in Maine to another region.

A major goal of tax policy must, therefore be to avoid placing a burden on forest land that would make it uncompetitive with other investments.

- Not be a disincentive to public access and recreational use

Most of the attention in tax policy for forest lands focuses on the effects of taxation on the growing of trees. But an emerging problem is the relationship between tax policies and the forest's ability to provide recreational opportunities. This has become a serious issue in Maine because of the growth in recreational use of the forests and the increase in landowner's use of access fees for recreationists.

Unfortunately, the relationship between tax policy and recreational use of the forest is not as clear as is that between taxes and growing trees. The issue has not been studied as extensively, and there are a number of widely diverging views on the subject.

Although the relationship is unclear, it is certain that a policy goal for Maine must be that tax policy should not unreasonably hinder the ability of the forest to provide

recreational opportunities, nor provide incentives for landowners to restrict public access for recreational purposes.

Implications:

Together, these policy goals suggest that a tax policy with the following characteristics should be used for forest land in Maine:

- **Stability**

Long term investments, such as owning forest land, need a sense of stability in order to be attractive. There are more than enough risks in the markets and in nature to increase the difficulties of forest land ownership. Tax policy should not add to these burdens of risk through a constant reshuffling of policies and programs.

Unfortunately, tax policy on forest land in Maine has been anything but stable over the past few years. To be sure, many of the changes, indeed the most important changes, have come as a result of federal policy, but the State has certainly contributed its share of instability. Three major revisions in forest fire taxes and numerous changes both small and large in the Tree Growth tax have made tax policy for the forest land owner a constant source of worry and uncertainty. Some order to forest tax policy must be restored, and maintained in so far as possible, into the future.

- **Recognize the reality of Maine's forests today and tomorrow**

Maine's forests need more investment in forest management if they are to sustain the state into the future. The attractiveness of that investment will depend, in part, on the taxes levied on the land. Maine's tax policy cannot be a burden on making that investment, and should provide incentives where necessary. It should not be a disincentive to ownership of productive forest land, nor to making the needed investments in intensive management of the forest resource.

3. Recommendations

1. The Tree Growth Tax

The Tree Growth Tax remains a controversial subject, as it has been for more than twenty years. Despite its flaws, the Tree Growth Tax is a tax that accomplishes what it was intended to do. Above all, it avoids the worst disincentives to forest ownership and management of the *ad valorem* property tax. It encourages forestry investments by taxing productivity rather than standing timber, and it shields land from development pressures to some extent. Provisions requiring that professional foresters review and approve management plans to maintain qualification for tree growth status are also important.

Current use tax treatment will never be a complete shield from development pressure; it can only address that portion of the pressure that comes from property taxes that rise too rapidly or too high. When land prices rise very quickly, no tax incentive is likely to prevent conversion of forest land. This is, in fact, happening in many parts of Maine today, but that is a problem more effectively addressed in those areas by land use planning and management than by tax policy alone.

There are changes in tree growth that could be made, such as increasing the number of regions and/or species for which values are set in order to provide more accurate valuations. There are others that should be made in order to make the tax less controversial, such as increasing municipal reimbursement.

But the Commission believes that the time has come for an end to continuing controversy over the tree growth tax. This is the single most important element in sound taxation of forest lands. Continued attempts to undermine it are counterproductive and, given the current condition of the Maine forest, will lead to substantial economic harm to the state in the future. Stability of tax policy was identified above as a key element of any tax policy for forest lands, and nowhere should the goal of a stable tax policy be given higher priority than in the tree growth tax.

The Commission therefore recommends that the tree growth tax not be modified, and that future proposals to modify the tax be accepted only for the purposes of improving

the administration or effectiveness of the tax as an incentive to the maintenance and growth of a productive forest.

In making this recommendation, the Commission is mindful of suggestions that forest land owners who have instituted access fees for recreational purposes should lose their tree growth status. The Commission believes this is misguided, for two reasons:

- First, the tree growth tax is not a "subsidy" to the landowner. It is simply a method of taxation that reflects the underlying economic characteristics of the forestry investment. It is the proper method of taxing such land, rather than special treatment.
- Second, if the suggestion were accepted, the inevitable result would be less public access rather than more, as landowners raised the access fees to cover their increased land costs.

An additional question is whether incentives beyond tree growth taxation are necessary in order to assure the long term viability of Maine's forests as an economic asset of the state. Additional incentives could take the form of either a reduction in taxes or through a direct grants program for forestry investments. Both types of incentive programs have been widely used in other parts of the country, particularly for small non-industrial private land owners. In general, the arguments surrounding such incentives in Maine may be summarized as follows:

Advantages

Given the economic importance of the forests to Maine and their need for significant increase in management investment, it would be imprudent to take no steps to assure that needed investments are made. The need is particularly great for small landowners, for whom market returns have generally been inadequate to encourage long term investments.

Disadvantages

There has been no systematic study of the level of investment needed by Maine forest owners, nor is there currently any substantial public demand for tax incentives. Thus the costs and effectiveness of such incentives would be unknown at this time. If incentives are needed, a grant program targeted to those most in need of incentives would be more effective than a generalized tax incentive.

2. Income Taxes

The major need to be addressed in the area of income tax costs is the problem of capital gains taxation. While there are many other provisions of the income tax law that were changed by the federal government last year, and which by reference were changed in the state law, the capital gains issue is the only one that the state can address.

There are essentially two options for dealing with the increase in taxation caused by the elimination of favorable treatment of capital gains income. One is to continue treating capital gains income more favorably than other types of income in the state income tax, even if it is no longer done in the federal income tax. The other is to adhere to the federal changes, but lower the rates to reflect the broader base.

In a separate study, Governor McKernan's Tax Policy Study Committee has examined the issue of capital gains treatment in its broader context. That Committee examined these options and concluded that without federal audit and monitoring of capital gains income, the costs to the state of implementing its own capital gains treatment would be unacceptably high. Thus that Committee, as part of its overall recommendations on the personal income tax, accepted the idea of lower rate on all income as the best alternative. This was done in their recommendation to lower the top marginal rate from 10% to 8% as part of a restructuring of the rates and brackets of the personal income tax.

This Commission believes that the extremely long period of holding for forest land investments, combined with the risks involved and the importance of the forest industry for the state, make a strong case for continued special treatment of income from long term forest land investments. This should only be done for land held for a substantially longer period of time than pre-1986 federal tax law permitted. The Commission did not examine the merits of options for the time period, but periods from 5-15 years were discussed as possibilities, with 10 years being the most frequently suggested.

Special treatment could take several forms. An exclusion of part of the income would be the simplest to administer, though the exclusion percentage need not be as high as 60%. An alternative would be to tax only the real (after inflation) gain; this could be done by subtracting from the income from a timber sale (net of sales expenses) the amount due to

general inflation¹³ and taxing only the remainder at the usual income rate. The Commission identified these as options to be considered when implementing such a provision.

The best choice for special treatment and the fiscal impact of such a change cannot be estimated from readily available tax information. The Commission recommends that the Bureau of Taxation acquire and analyze the needed information to determine the amount of income arising from timber sales in order that the Legislature and Governor may make a determination on the best method for taxing this income.

3. The Commercial Forestry Excise Tax

This is not the first Commission to consider the issue of the commercial forestry excise tax. The tax has been analyzed and evaluated by several groups since its inception, and each has found the tax to lack adequate justification as a means of fairly apportioning the one half of the State costs of forest fire protection that are not funded by the general fund.

Neither the old Maine Forestry District tax nor, the taxes that replaced it, have been satisfactory. Consensus on the best approach has eluded policy makers. But over the course of the many discussions, bills, and commissions, there did appear to be two points which established the extremes of the debate. On the one hand is the argument that some portion of forest fire costs should be paid from the general fund. There is a general benefit to the effective suppression of forest fire costs, plus there is a substantial amount of public forest holdings that the State is obligated to protect.

On the other hand is the argument that the costs should be attributable more to forested areas of the state than to non-forested areas. This latter point was variously interpreted to mean that forest owners should pay the entire remainder of the cost (the intent of the forest excise tax), or that forested towns should bear the remainder of the costs (the MFD tax).

¹³ These figures are readily available and easy to calculate. The Bureau of Taxation could publish a schedule of inflation factors for use by taxpayers with long term forest income.

It is clear that the benefits are widely dispersed, with everyone in Maine enjoying some benefit from a forest that is not threatened with destruction from fire or can become a menace to public safety. It is also clear that those nearest the forest receive greater benefits than those who do not.

Given this, five options for taxing for forest fire suppression have generally received the most attention in the debates:

1. The current commercial forestry excise tax.

This divides the non-federal portion of forest fire suppression evenly among the general fund and those forest owners with over 500 acres.

Advantages:

The current system's principal advantage is that it avoids the disadvantages of the other alternatives, particularly the political disadvantages of those alternatives. The tax's constitutional defects have now been corrected, and so it is now a legally permissible tax.

Disadvantages:

The disadvantages were outlined above in the description of the tax. It is complex and the connections between spending and taxing are difficult to perceive. It places a greatly disproportionate share of the burden for paying for forest fire protection on a small number of landowners and on a limited share of the states' forests. Since it places such a large burden on a part of the forest, it inevitably raises costs beyond economically sustainable levels and thus damages the prospects for long term forest investments and production.

The following alternatives to the commercial forestry excise tax all have the advantages of eliminating or reducing the inequitable aspects of the commercial forestry excise tax, but each alternative has its own distinctive set of advantages and disadvantages.

2. Lowering or eliminating the 500 acre threshold

The imposition of the Commercial Forestry Excise Tax only on those owning over 500 acres of forest land creates the major inequity in the tax. It could be overcome by simply lowering or eliminating this threshold.

Advantages

This would assign forest fire costs to a larger proportion of land owners. Ideally the tax would be paid by all forest landowners, eliminating the inequities of the tax.

Disadvantages

The major problems with changing the threshold are three: First, any threshold other than zero preserves some inequity. Secondly, it is very difficult to identify smaller parcels as forested without extensive cooperation and inspection by local assessors; this would result in substantially increased costs of administration. Finally, under the terms of the Law Court's decision on the forest fire suppression tax, the excise tax must be applied only to those engaged in commercial forestry. But any lower threshold would present an enormous verification problem.

3. General Fund

The general fund could pay the entire cost of forest fire suppression, eliminating the excise tax entirely.

Advantages:

This approach would be easy to administer, since it would simply require adjusting the funding mechanism already in place. This approach could be justified at this time because the increase in income tax revenues to the state brought about by the removal of capital gains treatment will probably not be fully offset by lowered rates. This added revenue¹⁴ could form the basis for full general funding of forest fire costs, eliminating the need for the commercial forestry excise tax.

Disadvantages:

The disadvantage to this approach, which has been suggested numerous times by others examining the problems of the forest fire tax, is that it would constitute a claim on state resources that are usually determined to have a higher priority use than providing what

¹⁴ The amount of revenue is impossible to precisely estimate, since neither the state nor the federal income tax returns indicate the capital gains from timber sales as a discrete item. Moreover, estimates of capital gains income tax revenues over the period 1987-88 are expected to decline from 1986 levels because investors sold assets in 1986 to avoid the tax increase in 1987. Thus it is likely that such a change, even if based on capital gains income from forest sales, could have to be phased in over time to avoid significant revenue problems for the State.

people have thought of as "tax relief to large forest land owners". This has made it politically impossible to claim more than the existing share of General Fund resources for forest fire protection.

A second disadvantage to full General Fund funding is that it would break the last tie between the funding of forest fire protection and those who receive the benefits of that protection. While everyone receives benefits from a healthy forest, some receive more benefits than others, notably forest land owners and those with property in or near the forest that would be threatened by fires that spread out of control. This has been a part of forest fire tax policy that is also consistent with general principles of tax equity that would be lost or reduced with full general fund use. It should be noted, however, that this disadvantage would be ameliorated to the extent that the "capital gains windfall" were used to provide the additional General Fund revenues.

4. A shift to the property tax

This would be the same approach as with General Fund funding, but would utilize the property tax instead. The additional \$3 million would be assigned to municipalities and to the unorganized territory municipal cost component; it would become part of the amount to be raised through regular property tax collections.¹⁵

Advantages:

The major advantage of this approach is that it would provide part of the funding for forest fire protection through the same mechanism as all other fire protection costs are paid. While it would add to property taxes, it would represent an average increase of 0.5% in property taxes.

Disadvantages:

A shift to the property tax, as with a shift to the general fund, is not a new idea as a solution to the inequities of the forest fire tax. And like the general fund its principal disadvantage is that it would place use on a tax for which higher priorities are claimed. It would have two added disadvantages: First, the property tax is generally considered an

¹⁵ Note that forest land taxed under tree growth would still be taxed under tree growth; this approach would simply add to the amount to be raised, not change the property tax itself.

inequitable tax because of its regressive characteristics; state tax policy has generally gone in the direction of relieving the property tax burden.

One way to avoid this first problem is to make sure that forest owners pay the additional costs through their property taxes. Unfortunately, this leads to the second problem: how to define a "forest land owner". This would become an administrative problem for local tax assessors if each parcel of land were to be checked to see if it met some minimum threshold of forest cover.¹⁶

5. Assigning costs to the unorganized territory

The majority of the forest land of the state is in the unorganized territory¹⁷, yet many unorganized territory land owners do not pay the excise tax because of the 500 acre limitation. The \$3 million dollar cost could be added to the municipal cost component and recovered through the property tax of the unorganized territory.

Advantages

This alternative would improve equity by having many forest land owners who do not now pay any share of the costs of forest fire protection (except through the general fund share) pay a greater share of the costs. Many landowners who live in or near the forest who also benefit from having effective forest fire protection would also pay a part of the costs. It would distribute the burden of forest fire costs to just two sources: the general fund and local property tax. If combined with an increase in general fund revenues to pay some portion of the costs attributable (by share of forested acres or other means) to organized municipalities, this approach would more equitably distribute the costs.

Disadvantages

¹⁶ Using existing data on forest land cover, it would be possible to devise formulas that would identify those municipalities of the state that were the most heavily forested (including, of course, the unorganized territory). Such an approach would assign a greater share of forest fire costs to those municipalities in or near the forested areas of the state.

¹⁷ Of the state's 17 million forested acres, approximately 10 million are in the unorganized territory and 7 million are in municipalities.

The forest, and thus the benefits of forest fire protection, extend beyond the boundaries of the unorganized territory, and thus this alternative would leave a large inequity in the excise tax. The Bureau of Taxation estimates that assigning the entire \$3,000,000 to the unorganized territory would result in a 40% increase in the property taxes levied on the unorganized territory.

There is no fully satisfactory answer to the faults of the Commercial Forestry Excise Tax. Neither full general fund nor full property tax funding of the \$3,000,000 non-general fund costs has received adequate support in the past for passage; these options are likely to prove as difficult in the future as they have in the past, although some Commission members believe that all General Fund funding is the best alternative.

Moreover, the \$3,000,000 figure itself has not been fully examined. This Commission was not charged to undertake a study of the efficiency and effectiveness of Maine's forest fire control system, and was not able to do so. But clearly the fire control system itself deserves greater attention in the debate over the Commercial Forestry Excise Tax.

The Commission believes that the solution to the serious inequities of the Commercial Forestry Excise Tax is a combination of steps, which individually will not address the issues, but which together offer a realistic and fair alternative. These steps are:

1. Examine the Forest Fire Control System. The Department of Conservation plans to examine the forest fire control system to determine where efficiencies may be realized. This should include comparing Maine's fire control program with that of comparable forested regions and determining to what extent advances in technology can offer more effective and efficient fire control.

2. A portion of the fire control budget should be assigned to the municipal cost component and paid for by all property owners in the unorganized territory. The fixed costs of forest fire control benefit the unorganized territory in a different manner than residents of organized territory, since the Maine Forest Service must provide first response capacity there. Property owners in the unorganized territory should pay for a share of these costs in the same way as all other property owners pay for fire protection—through the property tax.

The determination of what portion of the fire control costs should be allocated to the unorganized territory could be done through several different approaches, for example:

- The portion of CFET paid by the unorganized v. organized territories.
- The portion of forest land in each territory.
- The incidence of fires requiring only first-response capacity in each territory.
- A combination of these factors, or others.

3. The organized territory portion of costs determined in Step 1 should be paid by the General Fund.

To avoid large demands on the General Fund or sharp increases in property taxes, the changes in Steps 2 and 3 should be phased in over a period of two to four years.

If these three steps are taken, the Commercial Forestry Excise Tax could be phased out over a period of approximately four years. This approach preserves the inequities of the tax and its burdens on forest investments for a period of time, but an agreement to take these steps would signal large landowners of what their taxes will be, and permit them to make reasonable provision for needed investments in a productive Maine forest.

Appendix 1

CONVERTING TO A PRODUCTIVITY TAX: THE MAINE EXPERIENCE

David B. Field*

In November, 1970, the Constitution of the State of Maine was amended by voter referendum to permit the current-use valuation of real property for tax purposes. Following a year-and-a-half of work by two taxation study committees, and failure of several pieces of introduced legislation, LD 2034, "An Act Establishing a Forest Lands Taxation Policy Using a Productivity Approach", became law on March 10, 1972. This "Tree Growth Tax Law" (TGTL) has survived nearly ten years of controversy, but only with substantial revision.

The purpose of this paper is to provide enough information about the Tree Growth Tax Law to enable others to judge whether Maine's experience offers any lessons that might be of value to their states. I will discuss the structure of the current version of the law, trends in classification and valuation, and most importantly, the evolution of forest productivity taxation in Maine. Politics, not theory, has dominated that evolution.

Much about Maine's experience with its Tree Growth Tax Law may not translate readily to other states. Maine is the most heavily forested state in the Union, and contains more industrial forest land and a higher percentage of privately-owned forest land than any other state. Moreover, 42 percent of Maine's land is located in unorganized territories: townships with no local government that are taxed by the State, in the aggregate, as a single quasi-municipality. Finally, Maine has fewer miles of public roads serving its forest lands, on a mile/acre basis, than any other state. These facts have significantly influenced both the technical administration of the TGTL and the nature of public debates over the law's efficacy and equity. Organized vs unorganized areas, large owners vs small, forest landowners vs other taxpayers, and a general lack of understanding of a complex issue have all contributed to the development of today's version of Maine's productivity tax. But despite Maine's uniqueness, the story should hold some lessons for other jurisdictions.

The Tree Growth Tax Law--1982

This section presents the statement of purpose for and substance of the Tree Growth Tax Law as of February 1, 1982. It covers provisions of the law regarding classification, administration, valuation, assessment, and withdrawal.

It has for many years been the declared public policy of the State of Maine to tax all forest lands according to their productivity and thereby to encourage their operation on a sustained yield basis. However, the present system of ad valorem taxation

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does not always accomplish that objective. It has caused inadequate taxation of some forest lands and excessive taxation and forfeiture of other forest lands.

It is declared to be the public policy of this State that the public interest would be best served by encouraging forest landowners to retain and improve their holdings of forest lands upon the tax rolls of the State and to promote better forest management by appropriate tax measures in order to protect this unique economic and recreational resource.

This subchapter implements the 1970 amendment of Section 8 of Article IX of the Maine Constitution providing for the valuation of timberland and woodlands according to their current use by means of a classification and averaging system designed to provide efficient administration.

Therefore, this subchapter is enacted for the purpose of taxing forest lands generally suitable for the planting, culture and continuous growth of forest products on the basis of their potential for annual wood production. . . .¹

This statement of the purpose of the Tree Growth Tax Law has survived from the original with no more change than the insertion of the third paragraph in 1973.

Classification

A forest landowner must apply for inclusion under the terms of the TGTL, by April 1 of the year in which the classification is to take effect. To be classified, a parcel of land must contain ten acres or more of forest land and must meet one of the following four tests of eligibility:

1. Business: A sworn statement from the landowner establishing that the landowner is engaged in the business of selling or processing forest products and that the land is used in such business.
2. Inspection by a registered professional forester: A sworn statement from the landowner that the land has been inspected by a registered professional forester within the past 5 years and that the landowner is following the recommendations of that forester.
3. Written forest management plan for commercial use: A written forest management plan for commercial use of the land, accompanied by a sworn statement from the landowner that he is following that plan.
4. Land of less than 100 acres: The land is less than 100 acres and the landowner is managing the land according to accepted forestry practices designed to produce trees having commercial value.

The landowner must file an application with the assessor of the municipality where the land is located (or with the State Tax Assessor, for land not located in organized towns). The application must be accompanied by a forest type

map and must show: 1) the acreages contained in each of three broad forest types: softwood (75 percent or more of the stocking in pine, spruce, fir, hemlock, cedar, or larch), mixedwood (neither hardwoods or softwoods comprising 75 percent or more of the stocking), hardwood (75 percent or more of the stocking in maple, beech, birch, oak, elm, basswood, poplar, or ash); 2) the acreages contained in land unsuitable for forest growth (natural water areas, man-made water areas, wetlands and barrens); 3) the acreages contained in land not used primarily for commercial forest production (agricultural lands, open mines, roads, rights-of-way, camp lots, and other areas that the owner chooses not to classify).

By definition, eligible forest land includes only "land used primarily for growth of trees to be harvested for commercial use", but "land which would otherwise be included within this definition shall not be excluded because of multiple use for public recreation."²

Assessors are responsible for determining whether applications are valid and justified. Landowners must report to the appropriate assessor any change in forest type or in the use of lands classified under the TGTL. Assessors may approve or initiate changes in forest type for lands so classified when the facts justify such action.

Administration

Maine contains an area of 21,257,600 acres, of which 19,797,000 are land and 17,748,600 are forest land (Field, 1980). Forty-two percent of Maine's land--8,376,278 acres--is located in "unorganized territories": areas with no local government and few or no inhabitants (Figure 1). All lands classified under the TGTL are valued by the State Tax Assessor, who also levies all property taxes in the unorganized townships. These townships, in the aggregate, are treated as a single quasi-municipality.

In organized towns and "plantations" (semi-organized townships), municipal assessors adjust State valuations of TGTL lands according to the local assessment ratio, then levy taxes according to the same rate used for all property in the town.

Valuation

The key to Maine's TGTL, and source of much of the controversy over it, is the valuation process. By March 1 of each year, the State Tax Assessor must determine the 100 percent valuation per acre, for each of the three forest types, for each county or region in the State. (For 1982, valuations have been set for two counties and four regional groups. Thus, every acre of land registered under the TGTL will be assessed in 1982 at one of eighteen values.)

By statute, classified land is assessed at the "value of the annual net wood production", defined as "the average annual net wood production rate per acre for a forest type multiplied by the weighted average of the stumpage values of all species in the type."³ Thus, the TGTL is a form of the "sustained yield approach" to productivity taxation (Williams and

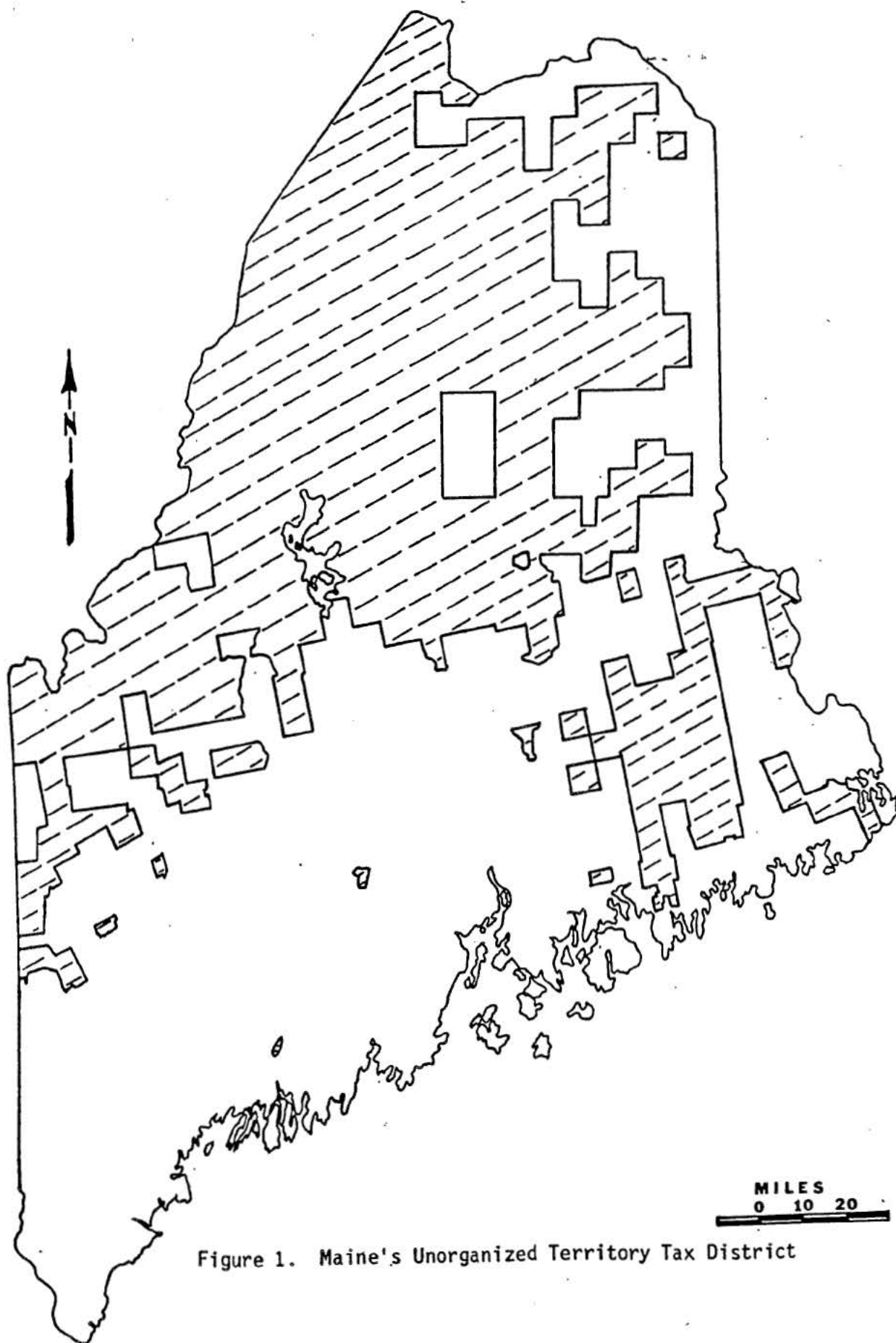


Figure 1. Maine's Unorganized Territory Tax District

Canham, 1972). Timber and land are assessed together at the capitalized gross value of statewide-average, net mean annual increments, by type, regardless of the actual stocking or site value of individual parcels.

The basic valuation formula is:

$$V = \frac{P \cdot G(1 - D)}{i}$$

where V = 100 percent valuation/acre for a given forest type,

P = weighted, average, current stumpage price for species comprising the type,

G = average, annual growth rate, for the given type,

D = a growth rate percentage discount factor,

i = capitalization rate (a current rate, not adjusted for inflation).

This formula clearly contains theoretical inconsistencies. In practice, the use of current stumpage prices (in effect, real-dollar estimates of future stumpage prices), a current-dollar (rather than real) capitalization rate, and the rather subjective discount factor, represents a mixing of countervailing forces that allows valuations to remain within politically-acceptable ranges.

Growth rate. The TGTL calls for determination of the "estimated average net usable amount of wood one acre of land is growing in one year" based on "surveys of average annual growth rates applicable in the State made from time to time by the United States Forest Service or by the Maine Forestry Department." Rates were originally determined for each county, using data from the 1970 U.S.F.S forest inventory. This practice was abandoned in 1974 because of the length and complexity of the calculation process and because "an unreasonable variation existed in rates between counties." (Maine Bureau of Taxation, 1974). Assured by the U.S. Forest Service that growth rates for a given species are similar throughout Maine, but that mean county volumes for each species and forest type vary greatly from one county to another, the Bureau of Taxation determined the average, annual, gross wood production rates by forest type, and county, for 1975-1984 as:

$$\frac{\sum [(A/B)(C/E)(I/C)]}{S}$$

where, S = species in forest type,

A = total state growth for a given species and forest type,

B = total state volume for a given species and forest type,

C = total county volume for a given forest type,

E = total county forest land acreage in a given forest type,

I = total county volume for a given species and forest type.

In this formula, (A/B) expresses uniform statewide growth rates, for each species and forest type, to be used for all counties; (C/E) expresses mean county volume/acre, for each forest type; and (I/C) states the ratio of species in a given forest type, by county.

This gross growth rate is reduced by a percentage discount factor to account for differences between forest survey growth estimates and the growth which experience shows "can be extracted on a sustained basis." This factor (D in the valuation formula) is currently set at 10 percent and is to be reviewed annually by the Legislature.

Stumpage price. LD2034 established a requirement that any owner of forest land who sells stumpage or cuts stumpage for his own business use "during a calendar year shall render an annual report to the commissioner during the month of January of the following year stating the species, volume and stumpage price per unit of measure for each transaction and the municipality or township where the stumpage was located."⁴ These confidential reports are used to calculate average stumpage prices for individual species, weighted by volumes harvested, for each of the four broad product groups: 1) softwood pulpwood, 2) softwood sawtimber, 3) hardwood pulpwood, and 4) hardwood sawtimber. These average prices are then totaled by product group and further weighted by the forest inventory product mix and converted into product group stumpage values per cubic foot using U.S. Forest Service conversion factors.

Capitalization rate. The rate at which the "value of annual net wood production" is capitalized ". . . shall be based upon the opportunity cost of owning forest land. Determination of the opportunity cost shall consider risk, access to financial markets, relative non-property tax treatments and all other relevant factors." The rate must be reviewed annually. It is currently set at 8.5 percent.

Final valuation. The 100 percent valuation/acre for each of the three forest types is determined for each county as the product of the average product group stumpage rates and their respective growth rates totaled by forest type and county, reduced by the discount factor, and capitalized.

Reduced valuations. If fire, disease or other natural disaster reduces stocking to less than three cords of merchantable wood per acre, the valuation of classified land shall be reduced by 75 percent for the first ten years following the loss.

Non-forest land. Areas other than forest land that are located within any parcel of forest land are valued on the basis of fair market value. They cannot be classified under the TGTL.

Assessment

Municipal assessors in organized towns are required to assess forest lands classified under the TGTL according to the State 100 percent valuations, adjusted by whatever percentage of fair market value is being used in the assessment of other property in the town. The forest lands are then taxed at the mill rate applicable to other property.

Municipalities may claim reimbursement from the State General Fund for tax losses suffered from the classification of lands in the town under the TGTL. The reimbursement is the greater of: 1) 15 cents per classified acre, or 2) the full loss in excess of a 10 percent loss from the aggregate tax assessed on the same lands in 1972 if the aggregate tax assessed on classified forest land for any year is less than 90 percent of the 1972 tax. Reimbursement may not exceed a measure of actual loss, defined by statute.

The unorganized towns, aggregated into the Unorganized Territory Tax District, are assessed and taxed by the State. The aggregate tax levied may not exceed the cost of services provided to the District.

Withdrawal

Land classified under the TGTL may be withdrawn from taxation under that law by an assessor, for cause, or by the landowner at his option. In either case, unless the change is due to the threat or exercise of the power of eminent domain, withdrawal imposes a penalty on the landowner which is the greater of: 1) the sum of the taxes that would have been assessed for the previous five years (or the years for which the land has been classified, if less than five) if the land had been assessed at its fair market value at the date of withdrawal, less taxes actually paid for the penalty years, plus interest at the legal rate; 2) 20 percent (30 percent after March 31, 1983) of the difference between the 100 percent valuation of the classified land on the assessment date immediately preceding withdrawal and the fair market value of the property on the date of withdrawal. No penalty is assessed if land withdrawn from the TGTL is accepted for classification under the Farm and Open Space Law.

Evolution of the Tree Growth Tax Law

Maine's current Tree Growth Tax Law differs substantially from the statute that first took effect in 1973. This section presents a chronology of events leading to passage of the TGTL and of the ten years of conflict and change that have shaped its present form. The story is one of politics, not theory or science, and underscores the power of the intensely political foundations of real property taxation in the United States.

1953

The foundation for productivity taxation was set by enactment of the "Chase Amendment" (MRSA 36, Sections 563-564, 1964), said by Williams and Canham (1972) to be "perhaps the first explicit recognition in this country of the productivity principle as applied to timber taxation":

It is declared to be the public policy of the State, by which all officials of the State and of its municipal subdivisions are to be guided in the performance of their official duties, to encourage by the maintenance of adequate incentive the operation of all

forest lands on a sustained yield basis by their owners, and to establish and maintain uniformity in methods of assessment for purposes of taxation according to the productivity of the land . . .

August 14, 1970

A Maine Woodlands Taxation Committee was created by Executive Order of Governor Kenneth M. Curtis. The Committee was charged with examining "the broad scope taxation of the forest lands of Maine both in the organized and unorganized areas" and with considering "our present taxation practices and various alternatives with the aims for fair and productive taxation and the effect of tax policy in producing desirable land use."⁵

November, 1970

The Maine constitution was amended by voter referendum to allow for the current-use valuation of real property.

January, 1971

After four months of debate, review of theories of woodlands taxation, examination of forest land taxation in other states, and discussions with consultants, the Maine Woodlands Taxation Committee presented its report to the Governor. Some Committee members had strongly favored linking tax change with land use control but the report, while endorsing land use control to favor forestry and open space, recommended strongly "against relying on taxation to effect land use decisions." The other recommendations were for: 1) mandatory, 100 percent of value, state-level assessment of all woodland parcels larger than a certain acreage, 2) application of local mill rates to state assessments (adjusted by the State for those towns with less than full-value assessment of other property) in organized towns, 3) use of a mill rate in unorganized towns equal to a weighted average of the mill rates of all the unorganized towns, 4) all assessment of woodlands on the basis of productivity or current use, whichever is higher, and 5) rollback penalties for changes in land use from timber production to other uses.

This report resulted in a bill presented to the 105th Legislature that adopted a growth productivity approach, but it did not pass the Committee on Taxation. Another bill (LD 1837: "An Act to Encourage Improvement in Forest Growth by Creating a Method of Taxation Based Upon the Productivity of Various Classes of Forest Land") was submitted by an industry committee and was passed by both houses, but Governor Curtis did not sign it, thus deferring action on it to the following session of the Legislature. During the summer of 1971, Curtis appointed another Committee (the Forest Lands Taxation Review Committee) to study LD 1837 and recommend whether the Governor should sign it or not. Chaired by University of Maine economist John Coupe, a member of the original Woodlands Taxation Committee, the new review committee recommended veto of LD 1837 and introduction of an amended version: LD 2018. Among other things, this bill called for a mill rate of 16.5 for the unorganized territory, to increase annually by one-half mill until the weighted average mill rate (about 33) of the organized towns was reached. An industry-supported bill, submitted at the same time, was identical to LD 2018 except that it set the maximum wild-lands mill rate at 19.5. A compromise bill, LD 2034 which allowed the mill rate to rise to 24 in 1978, passed both houses.

Governor Curtis allowed LD 2034, the "Tree Growth Tax Law", to become law without his signature of approval. In a news release on March 10, 1972, the Governor stated that he was willing to give the new approach a chance to work, but was not convinced enough of its merits to endorse it fully. His explanation included a list of the pros and cons that had been presented to him by proponents and opponents of the law. These foreshadowed the debates of the next decade:

There are several expected advantages to the productivity approach. It provides a uniform policy for setting valuation. This will provide a reasonable basis for predicting taxes for both small and larger owners of woodlands. The new law will equalize tax levels on woodlands in the organized municipalities and in the so-called unorganized "wildlands". Tax assessments will be based on the expected value of the wood grown, being highest on the more valuable soft woods such as spruce and lowest on lands growing lower priced hardwoods. According to the proponents of the bill, the new approach would yield an additional \$400,000 in the unorganized townships for each of the years 1974-1978. Based on 100% valuation, the rate would increase yearly from 16.5 mills in 1973 to 24 mills in April 1978. An appeal of tax assessments is also provided which is intended to assure fair treatment to all owners. The proponents point out that as tax rates on woodlands in organized municipalities will generally be lower than current levels, many owners of small wood lots and family sized farms, as well as the large landowners, will benefit. It is possible that the anticipated greater future share of school support from taxes other than property taxes will make the woodland tax levels in this bill higher relative to other land use categories. Also, when an owner withdraws land from his tree crop classification to use it for recreational, commercial or residential purposes, the law has a recapture penalty that would require payments in partial replacement of the lost taxes that would have been levied if the land had been taxed at a higher level of use during the previous five years. For these reasons, I have allowed L.D. 2034 to become law with the hope that it proves to be as reasonable and fair as its proponents claim.

However, the new law has several unknown qualities which have also been expressed to me.

The critics maintain that this untried productivity approach will allow a vast part of Maine land to be retained by a relatively few large owners at an unrealistically low tax rate based on assessments that are far below the market value of the land if it were developed for recreation or other purposes. Further, it is claimed by some that Maine's productivity tax approach does encourage land speculation, particularly in the case of large tracts, either not in production or with significant amount of shore frontage. A major concern is the potential danger of significant loss of revenue from both organized and unorganized communities,

which could result in a subsidy of land owners by a greater tax burden on other forms of property or sources of income in the 495 organized municipalities in Maine.

The original Tree Growth Tax Law differed from the current version in a number of important respects: 1) Classification was mandatory for all parcels of forest land containing more than 500 acres. 2) Classification of parcels between 10 and 500 acres in size was at the election of the landowner. 3) The growth rate discount factor and the capitalization rate were fixed by statute at 30 percent and 10 percent, respectively. 4) Stumpage rates were to be revised every other year.

The first few years after passage of the TGTL were relatively calm ones. Over ten million acres were classified by 1976, but 74 percent of this acreage was in the unorganized territory. Organized towns did not yet perceive a significant decline in tax revenues from forest properties. Criticism was limited largely to those who believed that landowners--especially large, industrial landowners--in the wildlands were not paying a fair share to the State's general fund.

On January 1, 1974, a law went into effect which, although not directly related to the TGTL, would have a profound influence on public attitudes towards forest land taxation. The "Act Equalizing the Financial Support of School Units" was Maine's reaction to national concern and litigation over the variation in public educational opportunities available to students among towns with different property tax bases. The new law called for public primary and secondary education in Maine to be supported 40 percent by property taxes and 60 percent by State tax sources. Administrative needs of the law led to requirements for 100 percent valuation of all real property and placed pressure on municipalities for the preparation of tax maps and reliance on professional assessment. Regardless of the assessment ratio chosen by towns to raise taxes for their own purposes their obligation to pay into the State education fund was based on 100 percent valuation, and the State saw to it that the valuation process was also as uniform as possible.

The net effect of these changes, for many properties, was a dramatic increase in property taxes. Because forest lands registered under the TGTL were already being assessed at full value, and because that value was limited by the TGTL formula, non-forest properties and unclassified forest lands felt the brunt of the increased tax levies. Not surprisingly, enrollment of forest lands under the TGTL rose rapidly, and the impact of the law suddenly became a major issue. As the full impact of the UPT took effect during 1975 and 1976, the stage for a drive to modify or repeal the TGTL was set by a coalescing of the following forces: 1) An element of the public, including some members of the Woodlands Taxation Committee, had long believed that forest lands held by large landowners did not contribute their fair share of taxes. 2) "Preferential" taxation of forest lands was perceived as the cause of a major shifting of the property tax burden to non-forest properties. This perception became especially strong after enactment of the Uniform Property Tax legislation and, no doubt, many persons associated subsequent tax increases with the TGTL rather than the UPT. 3) State valuation of forest lands under the TGTL was strongly resented by "local control" advocates, and this feeling was reinforced by the State valuation and school fund distribution provisions of the UPT. 4) It was believed by many municipalities, especially coastal towns and those with inland

lakes and ponds, that the TGTL was being used by real estate speculators to shelter shorefront and other development properties from fair market value taxation. It was believed, also, that some landowners who had classified their forest lands had no intent to grow timber for commercial use but, rather, were using the TGTL to tax shelter lands held primarily for recreational purposes. At the same time, a number of forest landowners whose property had been classified mandatorily by the TGTL complained that they did have development plans, would not have enrolled under the law voluntarily, and now were faced with a severe rollback penalty if they did develop the land for non-forest purposes.

Those were the dominant issues surrounding the Tree Growth Tax Law at the start of the second session of the 107th Legislature. The primary actors in the debate that took shape during the spring of 1977 (and continues to the present) included:

1. The Maine Municipal Association: Representative of the governments of Maine's organized towns, and primary organized opponent of the TGTL.
2. Owners of large areas of forest land: Major supporters of the TGTL, both through their own representatives and through two landowner associations: The Paper Industry Information Office and the Maine Forest Products Council.
3. Owners of small parcels of forest land: Increasingly vocal supporters of the TGTL, through individual spokesmen, the Small Woodland Owners Association of Maine, and the Maine Forest Products Council. (Some owners have spoken against the law, largely on grounds of equity.)
4. Conservation/preservation groups: Organizations such as the Maine Audubon Society, the Nature Conservancy, and the Natural Resources Council of Maine have lent general support to the TGTL because of its influence in deterring development and maintaining open space.
5. Governmental reform groups: The leadership of Common Cause of Maine, in particular, has opposed the TGTL strongly, largely on ideological grounds and with a clear focus on large landowners.
6. The Maine Woodsmen's Association: The MWA, an association of woods workers, has used debates over the TGTL as a forum for attacks on large landowners, especially those in the paper industry, with whom the MWA has a number of differences.

May 31, 1977

At a public hearing before the Legislative Committee on Taxation, two bills relevant to the TGTL were presented:

LD 318: "An Act Concerning the Administration of Property Tax Laws Administered by the Bureau of Taxation." (An attempt to repeal the "Chase Law" and make numerous changes in the TGTL.)

LD 1734: "An Act to Improve the Administration of the Maine Tree Growth Tax Law." (An attempt to drastically change the TGTL valuation procedure.)

July 22, 1977

A modification of LD 1734 was signed by Governor Longley, to be effective October 24, 1977. This bill repealed the fixed discount factor and capitalization rates, directed the State Tax Assessor to determine an appropriate discount factor by February 1, 1978, and every fourth year thereafter, directed the State Tax Assessor to set an appropriate capitalization rate by February first of each even-numbered year, and established a Land Classification Appeals Board.

November 14, 1977

First public hearing (required by LD 1734) on determination of the discount factor and the capitalization rate.

December 5, 1977

After several years of growing discontent, fueled by high taxes and local control issues, the Uniform Property Tax was repealed by voter referendum, effective March 3, 1978. The State retained an indexing scheme for State support of public schools and continued to insist on improved local valuation.

January 12, 1978

Professors John D. Coupe and Robert H. Sapp, economists at the University of Maine at Orono, presented to the State Tax Assessor a consulting report entitled "Assistance in the Determination of the Capitalization Rate and Reduction Factor Under Maine's Tree Growth Tax Law" (Coupe and Sapp, 1978). The authors interviewed publicly-employed foresters and weighed information from those professionals against public testimony to conclude that the discount factor should be set at between 15 and 25 percent. They used four approaches to determination of the capitalization rate: 1) a study of actual forest land market transactions occurring during 1975, 1976, and 1977; 2) an econometric derivation of the capitalization rate determined by fitting market transactions evidence to models based on the TGTL; 3) an analysis of yields on investments in cumulative preferred stocks (The authors chose this alternative investment as somewhat comparable to forest investments, but emphasized that "no ideal alternative investment is apparent."); 4) an examination of the capitalization rates specified in Florida's "Greenbelt Law". They concluded that the capitalization rate should be set at 8.5 percent.

January 31, 1978

State Tax Assessor Raymond L. Halperin certified the TGTL discount factor at 20 percent and the capitalization rate at 8.5 percent.

February 27, 1978

LD 2159, "An Act Relating to the Taxation of the Unorganized Territory" was introduced to the 108th Legislature. Repeal of the Uniform Property Tax and an opinion by the State Attorney General that the "local and state government tax" might be illegal threatened to leave the State with no authority to tax property in the unorganized territory. LD 2159 ("emergency legislation", to take effect when passed) created the "Unorganized Territory Tax District", a quasi-municipality including all unorganized townships in the state, and established a district tax, the "Unorganized Territory Educational and Services Tax". The purpose of this tax was "to recover from the unorganized territory the state's expenses attributable to providing governmental services and education therein . . . the organized territory is treated as if it were a municipality and the tax imposed is the equivalent of a local municipal property tax." Thus, the Unorganized Territory is taxed for the cost of services provided by the State that would not be borne by the State if the District were actually a municipality. The law called for the Legislature to determine annually the cost of providing governmental services and education to the unorganized territory and for the State Tax Assessor to set a mill rate calculated to raise that sum. Services were to be identified and valued by the Governor's office and reported to the Legislature. In 1980, the wildlands were taxed \$6,195,296 to pay for the State's share of expenses for the education of children living in the unorganized territory and for the following governmental services: 1) forest fire protection, 2) public safety, 3) Land Use Regulation Commission, 4) Secretary of State expenses relevant to the wildlands, 5) property tax assessment, 6) reimbursement to counties for services, 7) human services.⁶

One significant effect of this legislation was to remove from the Unorganized Territory Tax District the long-standing threat from those who feel that the large industrial forest ownership should be taxed in such a way as to reduce taxes paid in the organized towns. (Maine Common Cause has proposed that the University of Maine be supported by property taxes from the unorganized territory.⁷) Now, by law, the District tax is limited to services provided to the District. Tree Growth Tax Law changes have consequently become of far less importance to landowners whose forest properties are located entirely or primarily in the wildlands.

September 15, 1978

LD 2213, An Act to Limit Government Spending and Provide Property Tax Relief and to Correct Inequities in the Tree Growth Tax Law" failed to pass. This "Proposition 13"-type bill would have replaced the TGTL discount factor and capitalization rate by a "factor that reflects the average market price of land sold for timber production."

The First Regular Session of the 109th Legislature, in 1979, saw a flurry of legislative attempts to eliminate or modify the TGTL:

February 14: LD 563, "An Act to Require that Forest Land be Taxed According to Current Use", called for valuation according to average sales price, a written management plan approved by a Registered Professional Forester, and an affidavit by the landowner certifying his intent to grow timber for commercial use. This Maine Municipal Association bill included a tax rebate for the first 50 acres of land classified.

February 27: LD 802, "An Act to Amend the Tree Growth Tax Law", called for a repeal of mandatory classification for parcels over 500 acres, exclusion of coastal shorelands from eligibility, changes in the formula for municipal reimbursement, and a requirement that enrollment depend on either a sworn affidavit that the owner is in the forest products business, certification by a Registered Professional Forester, or a written management plan.

March 5: LD 1033, "An Act to Provide that the State Tax Assessor Shall Use Information from Federal Income Tax Forms to Determine Appropriate Valuation of Land under the Tree Growth Tax Law for Those Taxpayers who Declare Capital Gains from Timber Sales on Federal Income Tax Returns".

March 20: LD 1453, "An Act to Establish an Excise Tax on Timber Harvest", would have levied on the landowner a severance tax of 50 cents/cord or \$1.00/MBF in addition to TGTL taxation. (The first 500 cords harvested annually would have been exempt.)

March 24: LD 1244, "An Act to Amend the Tree Growth Tax Law", was similar to LD 802.

March 30: LD 1523, "An Act to Impose a Tax on Timber at Harvest to Provide for Reimbursement to Communities for Loss from the Tree Growth Tax Law", called for a "yield tax" levied on the landowner, in addition to the TGTL tax levy. The rate would have been five percent of stumpage values for 1980 and would then have been set annually by the Legislature at a level sufficient to reimburse towns for "losses" due to the TGTL.

None of these bills passed, but they caused a good deal of debate. The severance tax approach was the latest attempt by municipalities to make up perceived revenue losses due to TGTL classifications in their towns.

June 15: Both LD 1237, "An Act Relating to Withdrawal Penalties Under the Tree Growth Tax Law", and LD 1656, "An Act Establishing the Municipal Cost Component for the Unorganized Territories", were signed into law. LD 1237 defined "fair market value" to be used in calculating the rollback penalty as "the assessed value of comparable property in the municipality adjusted by the municipality's certified assessment ratio." LD 1656 modified the definition of the "municipal cost component" for the Unorganized Territory Tax District to specify that the cost of forest fire protection included in that component be determined by applying the mill rate set for organized municipalities to the 100 percent valuation of all property in the unorganized

territory. (The Maine Forestry District, a forest fire control region covering both organized and unorganized towns, is administered by the State. LD 1656 was concerned with the uniformity of support for the District between organized and unorganized territories.)

October 22, 1979

In a speech at the University of Maine at Fort Kent, Richard E. Barringer, Commissioner of the Maine Department of Conservation, stated:

And to compensate municipalities for taxes foregone under Tree Growth I can think of no remedy other than the imposition of a severance tax to be paid at the time of harvest, when the deferred benefits of reduced taxation are realized by the forest landowner. Income from this tax would be redistributed to the municipalities to bring their revenues back to pre-Tree Growth Tax levels.

The final round of debates over the TGTL to be reported in this chronology took place during the first regular session of Maine's 110th Legislature in 1981. Between February 5 and April 1, four bills were introduced that called for a full range of changes, including another severance tax proposal, elimination of the discount factor, exclusion of shorelands, and even the prohibition of posting of classified lands against hunting, fishing, and trapping. In the end, the Maine Forest Products Council, the Maine Municipal Association, large and small landowners, and conservation groups joined to support LD 955, whose changes are reflected in the current TGTL: Repeal of mandatory classification, tightened eligibility requirements, annual valuation, the use of market regions rather than counties for the valuation base, fixing of the discount factor at 10 percent (to be revised only by the Legislature), and revision of the town reimbursement formula.

On October 1, 1981, 1982 valuations were changed from counties to regions that include both single counties and aggregates of counties. In November, the capitalization rate was re-certified at 8.5 percent.

One final effect of the 1981 amendments is that all forest landowners who wish their land to be certified under the TGTL must, prior to April 1, 1982 file affidavits showing that they qualify under the terms of the new eligibility criteria. Attorney General James E. Tierney has issued two options⁸ that both landowners who have not changed the use of their land, but who are unable to qualify under the new law, and those owners of more than 500 acres who were involuntarily classified and still do not wish to be classified, will be subject to full rollback penalties on withdrawal from TGTL classification.

(Late update: on March 17, 1982, two new bills will be heard before the Committee on Taxation. One would ensure that no zoning ordinance or other artificial barrier would prevent classification under the TGTL, and would require assessors to notify landowners who are denied TGTL classification, for any reason, of the opportunity for classification under the Farm and Open Space Law. The other bill would keep the discount factor at 10 percent.)

Trends in Classification and Valuation

In 1976, three years after the TGTL went into effect, 10,374,850 acres of Maine's forest land had been classified under the law--61 percent of the state's 16,894,000 acres of commercial forest land. 2,696,600 of these acres were located in organized towns (Table 1); 7,678,260 in the unorganized territory. By 1980, enrollment had grown to 11,846,600 acres--70 percent of Maine's commercial forest land--with 3,496,600 acres in the towns and 8,350,000 acres in the wildlands.

In 1976, 3,125 parcels were classified in the organized towns, and 1,678 in the unorganized territory. By 1980, these figures had risen to 13,170 and 2,100, respectively. In 1980, the average parcel of land classified under the TGTL encompassed 776 acres. Averages for the organized and unorganized towns were, respectively 265 acres and 3,976 acres.

Tables 2 and 3 show, respectively, changes between 1973 and 1982 in TGTL valuations and both current dollar and real dollar rates of change in those valuations. Interestingly, although TGTL valuations are substantially lower than ad valorem assessments in most of Maine, a number of towns still value forest lands ad valorem at less than TGTL values.

Prospects for the Future

Maine's Tree Growth Tax Law has led a stormy life. Despite recent major revisions, it remains the target of a number of interests that would like to see it repealed altogether. It retains the advantages of encouraging timber productivity, maintaining open space, being inexpensive to administer, ensuring predictable tax burdens for landowners and tax revenues for governments, and fostering stability of landownership. It still is burdened by the disadvantages of being difficult for many to understand, having too many factors subject to administrative interpretation, and providing assessments and tax revenues perceived as far too low by taxpayers who own non-forest properties.

The law also possesses theoretical flaws. Its valuation formula is inherently biased against poorly-stocked forest lands and new plantations, indeed, anything less than a fully-regulated forest. Its use of average growth and stumpage values although conservative in the aggregate, is regressive: overassessing some land and underassessing others.

But, the primary lesson to be learned from Maine's experience with its Tree Growth Tax Law is that the forest tax planner must pay at least as much attention to the political forces that must absorb his theories as to the theories themselves. It is probable that, after ten years, very few of Maine's citizens understand the theories underlying the State's Tree Growth Tax Law--or care. It will be interesting to watch their reaction to the recalculation of the valuation formula's growth rate component if, as expected, the new forest survey shows that Maine's dominant spruce-fir forests have actually reached zero or negative growth as a result of the spruce budworm epidemic. Only the bottom line will reach the headlines.

Table 1. Trends in the acreage of lands classified under Maine's Tree Growth Tax Law in the organized towns.^a

| County | Acres Classified | | |
|--------------|------------------|-----------|----------|
| | 1976 | 1980 | Increase |
| Androscoggin | 4,338 | 35,100 | 30,762 |
| Aroostook | 535,155 | 614,000 | 78,945 |
| Cumberland | 32,225 | 78,700 | 46,475 |
| Franklin | 239,766 | 284,900 | 45,134 |
| Hancock | 152,228 | 201,300 | 49,012 |
| Kennebec | 11,520 | 76,000 | 64,480 |
| Knox | 352 | 12,300 | 11,948 |
| Lincoln | 763 | 23,900 | 23,137 |
| Oxford | 256,190 | 392,600 | 136,410 |
| Penobscot | 482,776 | 565,900 | 83,124 |
| Piscataquis | 293,542 | 339,300 | 45,758 |
| Sagadahoc | 0 | 16,000 | 16,000 |
| Somerset | 251,049 | 347,700 | 96,651 |
| Waldo | 9,701 | 24,700 | 14,999 |
| Washington | 393,980 | 419,900 | 25,920 |
| York | 32,951 | 64,200 | 31,249 |
| Total | 2,696,596 | 3,496,600 | 800,004 |

^aSource: Maine Bureau of Property Taxation

Table 2. 100% valuations (per acre) under Maine's Tree Growth Tax Law.^a

| County | For 1973 | | | For 1982 | | |
|---------------------------|----------|-----------|----------|----------|-----------|----------|
| | Softwood | Mixedwood | Hardwood | Softwood | Mixedwood | Hardwood |
| Androscoggin ^b | 34.80 | 19.30 | 10.10 | 102.20 | 60.60 | 23.90 |
| Aroostook | 26.60 | 18.00 | 7.70 | 88.80 | 64.00 | 27.50 |
| Cumberland ^b | 29.90 | 17.90 | 7.40 | 102.20 | 60.60 | 23.90 |
| Franklin ^c | 31.10 | 18.60 | 9.80 | 87.80 | 57.50 | 30.50 |
| Hancock ^e | 18.90 | 11.20 | 4.20 | 80.60 | 54.00 | 20.50 |
| Kennebec ^b | 22.50 | 12.90 | 6.60 | 102.20 | 60.60 | 23.90 |
| Knox ^b | 23.20 | 13.20 | 6.80 | 102.20 | 60.60 | 23.90 |
| Lincoln ^b | 23.20 | 13.60 | 6.70 | 87.80 | 60.60 | 23.90 |
| Oxford ^c | 30.90 | 19.20 | 10.30 | 80.60 | 57.50 | 30.50 |
| Penobscot ^e | 20.30 | 15.50 | 6.90 | 108.70 | 54.00 | 20.50 |
| Piscataquis ^d | 33.10 | 18.30 | 10.20 | 102.20 | 65.80 | 39.00 |
| Sagadahoc ^b | 34.40 | 19.50 | 9.70 | 108.70 | 60.60 | 23.90 |
| Somerset ^d | 33.10 | 17.90 | 9.60 | 102.20 | 65.80 | 39.00 |
| Waldo ^b | 22.90 | 13.80 | 7.00 | 71.20 | 60.60 | 23.90 |
| Washington | 21.70 | 16.10 | 2.60 | 102.20 | 59.80 | 12.90 |
| York ^b | 28.80 | 17.80 | 7.30 | | 60.60 | 23.90 |

^aSource: Maine Bureau of Property Taxation

^{b,c,d,e} 1973 valuations were made for each county. 1982 valuations are for two counties and the four regional county groups indicated by these letters.

Table 3. Current^a dollar and real^b average annual rates of compound change in the 100% valuation per acre by county and forest type, Maine Tree Growth Tax Law, 1973 valuation to valuation for 1982. (In percent)

| County | Softwood | | Mixedwood | | Hardwood | |
|--------------|----------|------|-----------|------|----------|------|
| | Current | Real | Current | Real | Current | Real |
| Androscoggin | 12.7 | 2.7 | 13.6 | 3.5 | 10.0 | 0.2 |
| Aroostook | 14.3 | 4.1 | 15.1 | 4.9 | 15.2 | 5.0 |
| Cumberland | 14.6 | 4.4 | 14.5 | 4.3 | 13.9 | 3.8 |
| Franklin | 12.2 | 2.2 | 13.4 | 3.3 | 13.5 | 3.4 |
| Hancock | 17.5 | 7.1 | 19.1 | 8.5 | 19.3 | 8.7 |
| Kennebec | 18.3 | 7.8 | 18.8 | 8.2 | 15.4 | 5.1 |
| Knox | 17.9 | 7.4 | 18.5 | 8.0 | 15.0 | 4.8 |
| Lincoln | 17.9 | 7.4 | 18.1 | 7.6 | 15.2 | 5.0 |
| Oxford | 12.3 | 2.3 | 13.0 | 3.0 | 12.8 | 2.8 |
| Penobscot | 16.6 | 6.2 | 14.9 | 4.7 | 12.9 | 2.9 |
| Piscataquis | 14.1 | 4.0 | 15.3 | 5.1 | 16.1 | 5.8 |
| Sagadahoc | 12.9 | 2.9 | 13.4 | 3.3 | 10.5 | 0.7 |
| Somerset | 14.1 | 4.0 | 15.6 | 5.3 | 16.9 | 6.5 |
| Waldo | 18.1 | 7.6 | 17.9 | 7.4 | 14.6 | 4.4 |
| Washington | 14.1 | 4.0 | 15.7 | 5.4 | 19.5 | 8.9 |
| York | 15.1 | 4.9 | 14.6 | 4.4 | 14.1 | 4.0 |
| Average | 15.2 | 4.9 | 15.7 | 5.4 | 14.7 | 4.5 |

^a"Current" changes are based on valuation sheets issued by the Maine Bureau of Taxation for tax years 1973 and 1982. Changes include the influence of revisions in the TGTL discount factor and capitalization rate between 1973 and 1982.

^bReal changes were derived by deflating the current changes by the average, annual rate of compound increase in the producer price index for all commodities from 1973 (PPI = 119.1) to 1982 (PPI = 275.9), equal to 9.78%.

Footnotes

51. ¹Title 36 MRSA, Sec. 572. Purpose. 1972, C.616, §8; 1973, C.308,
- ²Title 36 MRSA, Sec. 573. sub-§3, as amended by PL 1981, C.517, §3.
- ³Title 36 MRSA, Sec. 573, sub-§9. 1972, C.616, §8, 1973, C.308, §2.
- ⁴Title 12 MRSE, Sec. 520-B.
- ⁵Minutes of the Maine Woodlands Taxation Study Committee.
- ⁶Personal communication, May 11, 1981, from James P. Norris, Deputy Director, Property Tax Division, Maine Bureau of Taxation.
- ⁷Common Cause/Maine Newsletter of December 4, 1980.
- ⁸Letter of January 20, 1982 from Attorney General James E. Tierney to State Tax Assessor Raymond L. Halperin, and letter of January 28, 1982, from James E. Tierney to five members of the Maine House of Representatives

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Appendix 2

TAXATION OF FORESTS:
A REVIEW OF THE LITERATURE

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September 24, 1987

The relationship between taxation, especially land taxation, and the productivity of forest resources has been a matter intense scrutiny and debate for most of this century. A large literature has grown up to examine how taxes affect the forest owner's ability to produce wood and other valuable assets, such as recreation. This paper briefly highlights the results of some of this research and its implications for Maine. The focus is on land taxation rather than income or other taxes, since this is what most studies have concentrated on.

The principal reason why this subject has been a matter of such intense interest to academic, industry, and government researchers is simple: the question of how to tax a resource that takes as long as a century to grow and realize any income is a very difficult one. The numerous theoretical and simulation studies that have been done offer interesting, but often contradictory, results. Empirical studies of the effects of taxation are very scarce, because they are difficult to undertake.

Despite all the energy that has gone into examining forest taxation, there thus really are no firm conclusions about what is the "best" tax for forests. Nevertheless, foresters and economists have developed a number of helpful insights into the complex relationship between taxes and trees that should be kept in mind when thinking about forest tax policy. These insights may be grouped under two headings:

- What are the different options for forest taxation?
- What is the relationship between the different taxes and the supply of timber, especially as that supply is affected by decisions to invest in active forest management?

Three basic approaches have been developed over the years for taxing forest land. The distinctive features of each approach lie in the way in which forest land is valued for taxation purposes, that is how is forest land included in the tax base. Each has its advantages and disadvantages, its proponents and opponents.

The ad valorem property tax. This is the "normal" property tax. The tax base is defined as the fair market value of the forest parcel, or what a willing seller would pay a willing buyer. The usual assumption is that the "buyer" will put the land to its highest and best use.

This is the tax that is said to have the most adverse effects on forestry. Because the property tax "taxes annually a crop which ripens only periodically" it double taxes timber, and thus places a heavier burden on forest land than other kinds of land.

The double taxing occurs when the value of both the forest land and the maturing timber is included in the tax base. In this case, the market value is determined by the land's ability to grow timber. The value of the income to be gained in the future from selling the timber, discounted to the present value¹, is the market value of a parcel of forest land.

¹ "Present value" is a key concept in understanding taxes and their effect on forestry. A basic principle in economics is that a dollar received in the future is worth less than a dollar received today. The reason is simple: if you have a choice between getting \$1.00 today and getting \$1.00 a year from now, it would be better to take the \$1.00 today, put it in the bank, and have the \$1.00 plus interest in a year. Therefore, in order to decide about receiving income in the future, we need to make adjustments to have it reflect what it is worth to us today. This is done by "discounting" the future value to a present value, using the interest rate that we could have invested our money at today as the discounting factor. This, \$1.00 a year from

The property tax taxes this value each year so that by the end of the time between planting and harvest (the "rotation age") the income that will be earned when the trees are cut and sold is taxed several times. This provides an incentive to cut trees sooner than may otherwise be desirable.

It also discourages timber management, since the capital invested in planting or other management is taxed many times between its application and the income realized. The disincentive to investment is greatest on land of marginal quality, the land which is generally in need of the greatest level of management investment. This latter characteristic is called "site bias", meaning the property tax is biased against poor quality sites.

The other major drawback to the property tax is that its use of "highest and best use" in areas where development pressure exists can mean taxes so high that they cannot be paid by income from timber sales, and thus a conversion to non-timber use is encouraged. This is not, of course, a problem limited to forests; agriculture and open space are also at issue and are included in the Maine constitution's provisions for current use taxation.

The property tax does have some advantages. Uniformity of taxation with other real assets and relative ease of assessment are two. The "double taxing" also serves as a kind of "pay as you go" system, in contrast to the yield tax (see below).

The productivity or site value tax. The productivity tax is a variation on the property tax. The property tax rate is used, but the base is modified so that the timber growing capacity of a site becomes the basis of the property tax assessment. The actual standing timber is not part of the base, only the land with its ability to grow trees.

There are many variations on the productivity tax. The tax may be based simply on a piece of bare land with a (discounted) future income based on the land's theoretical ability to grow trees, ignoring entirely the actual growth that actually takes place. This approach would be the purest form of "productivity" tax, since the base is always what the land could grow, ignoring what it does grow. However, it obviously violates a sense of equity to have actual conditions completely ignored. It would be equivalent to taxing house lots without regard to whether a house was actually there, just how good a site for a house the lot is.

A second approach looks at current net income from the forest land and uses this amount, adjusted to reflect what will be received in the future. A third approach takes the actual condition of the timber on each site into account.

The Tree Growth Tax is a compromise between these second and third approaches. It uses current income (stumpage prices, which is a gross not a net form of income), and attempts to make some adjustments for site variability by adjusting the tax base by county and by three broadly-defined forest types. This is obviously only a very rough approximation of actual forest conditions on a site by site basis, and is done to keep administration of the tax within reasonable costs.

today really ought be thought as worth about 91 cents, if we could put that 91 cents in the bank at 10%. The mathematics of this calculation are a little complicated, but the basic points are simple: the future is worth less than the present, and the higher the interest rate we use to discount the future, the less the future is worth.

The major advantages of this tax are that it does provide incentives for forest management and forestry uses. It is a form of "current use" valuation, and thus avoids the pressures of development. More importantly, it does not penalize poorly stocked land.² The tax can also promote reforestation, since it taxes the land as if it were growing timber, and so provides an incentive to restock after cutting.

The disadvantages of this tax are principally two: First, it is "front end loaded". That is, the tax on a piece of bare land can be as high as on a fully stocked piece of land, thus placing a burden on owners with little income from other sources to pay taxes in these early years.

Second, the tax may not raise the same revenue as the ad valorem property tax. This adverse effect will come as no surprise in Maine, where complaints by towns over the low revenues raised by "tree growth" are chronic. This effect depends, however, on the tax rates actually used and how the property tax with which it is compared is actually assessed. In many cases, a productivity tax may be equal to or slightly higher than a property tax.

There are also serious problems in terms of the information needed to assess with this method. The actual figures to be used in the valuation formula are not easily identified, and in fact have been the subject of much debate and discord which the Legislature has had to step in to settle. Statewide or even county wide assessments are at best only a very rough approximation of actual conditions on the millions of acres of forest land in Maine.

Taxes levied at the time of sale There are two types of tax under this general heading. A yield tax is imposed at the time of the sale, but is imposed instead of a property tax, while a severance tax is imposed in addition to a property tax. A yield tax is normally a percentage of income, while a severance tax is a per unit (cord, board foot, etc.) tax.³

The yield tax obviously overcomes some of the problems of the property and productivity tax. It delays taxation until the time of sale, thus avoiding the problems of "front end loading"; Cash flow problems for the landowner are minimized, and since the tax is taken out at the end of the rotation it is small on a present value basis⁴ and thus is not a disincentive to replanting. The risks that attend any forest growing operation- fire, insects, price fluctuations, etc. are shared with the government.

The yield tax would appear, on the surface, to be the ideal tax from the landowners point of view. This assumes, however, that the yield tax is not set to produce revenue equivalent to the property tax or even the productivity tax, since the yield tax rate that produces revenue equal to the other taxes must often be over 50%. The rate must be even higher if revenues are to be a principal source of revenue because of the much greater variability in the yield tax.

² Stocking refers to the density of trees found on a given site.

³ "Yield" and "severance" taxes are sometimes used interchangeably in other contexts, but these definitions reflect commonly accepted usage in forestry.

⁴ The same logic that says that income received in the future is worth less today also implies that a cost incurred in the future is worth more. That is, a cost to be paid tomorrow is smaller than a cost we have to pay today.

The yield tax also has the opposite effect of the property tax- it lengthens rotations. This means that while it encourages replanting of long-rotation species (because the tax seems very far off), it becomes a larger expense the closer the harvest gets. This means management expenses applied late in a stand's life, or which have the effect of speeding up tree growth, will appear unduly costly unless the harvest is put off. It also means that short rotation crops, such as Christmas trees, are much more heavily burdened than long rotation crops.

The severance tax is notorious for causing a high grading of the harvest. The highest grade trees will be cut and sold first, since they command the highest price and thus will make a per-unit tax easier to bear.

Finally, the yield tax alone is a 100% tax break for landowners who never cut their trees but use their land for recreation, etc. This is primary reason why it used in conjunction with a property tax.⁵

The preceding characterizations of each type of forest taxation are generally well accepted, but there remains vigorous debate about many aspects of each tax. These debates among forest economists are often arcane and difficult to understand. A few key points in these disputes are, however, worth remembering:

- The property tax's bias in favor of cutting too soon (called the deferred yield bias) depends on who actually bears the burden of the tax. If the tax can be passed forward to the customers of the timber in the form of higher stumpage prices, there is no deferred yield bias. However, the usual assumption is that landowner bears all or most of the burden of paying the tax, and thus the bias in favor of early cutting exists.
- The actual level of adverse effects, such as the biases in favor of longer or shorter rotations, are very difficult to measure and depend on the assumptions used in analyzing individual situations. These effects may be seen to be very large and important or small and insignificant, depending on which assumptions are used. The effects also depend on tax rates; the relatively low percentages of the property or productivity tax may not have as much effect as the much higher percentages involved in a yield tax.
- The productivity tax may have some of the same defects as the property tax. It also places a heavy burden early in the rotation; the "virtue" of taxing bare land as if it were growing trees can just as easily be seen as a vice, imposing a high tax in the early years of an investment.

Moreover, if the productivity tax is designed so that it assumes that the stumpage price used in the valuation is actually received annually, the effects can be worse than a property tax. The Tree Growth Tax attempts to correct for this effect by assessing the "value of the annual net wood production" according to county and forest type, but its use of broad averages for administrative reasons means Maine's Tree Growth Tax may be unduly onerous on certain kinds of sites.

Different solutions to this potential problem of the productivity tax have been proposed, including adjusting the productivity tax for the stocking levels (that is for how many trees are actually present), and adjusting the valuation equation so that the assumption

⁵ New Hampshire's Yield Tax law provides that if trees are not cut when they mature they will be taxed as if they had been cut. This, of course, leads to disputes over when the trees are "mature".

that the stumpage value is applied each year to all the wood is relaxed to reflect the more realistic assumption that only parts of the forest are cut and sold each year.

- The productivity tax's valuation formula also presents some thorny practical and theoretical problems, especially in the capitalization rate⁶. If this rate is allowed to vary with economic conditions, the productivity tax can become very unpredictable. Inflation would have the effect of pushing up the capitalization rate, and thus driving productivity values down; similarly a capitalization rate established during a period of high inflation would cause productivity values to rise when inflation eased. Long-term real (without inflation) rates have to be used, but these are difficult to identify with precision, and cause much controversy among economists, tax payers, and tax administrators.

- One of the provisions in many state's forest tax laws is that in order to qualify for special status as forest land some evidence that the land is being actively managed as forest. The effectiveness of such laws in promoting forest management through this mechanism is very unclear. While Massachusetts reports a great deal of success, little or no evidence of success can be found in western states. Maine's experience is uncertain.⁷

- Almost all of the analysis of forest taxation has focused on the relationship between taxes and wood growing. Very little work has been done on the relationship between taxes and the forest's ability to provide other things of value, in particular recreation and esthetic benefits. These "external" benefits imply that the social value of the forest is higher than just the value of the trees cut and sold. It is not clear how such values should be taken into account in the taxation of forests.

Those who enjoy the recreation and esthetic benefits prefer well-stocked and managed stands to remain intact, rather than be cut. Taxes that provide incentives that encourage longer rotations would be preferred from this perspective. At the same time, if the forest tax is well designed from the point of view of growing wood, it might discourage the provision of the broader values, since the costs of providing these broader values are not taken into account in the tax.

- Finally, it must be noted that the vast majority of the analysis of timber tax effects is not empirical. That is, it relies on theoretical approaches and modelling the simulate the effects of taxes. There are two reasons why more empirical work is not done. First it is very expensive to collect and analyze the kind of data needed, and second, the forest and the forest economy are such complex systems that isolating the exact effects of forest taxation ranges between the extremely difficult and the impossible.

The majority of the studies that have been done have also focused on a single question: "What is the effect of taxes on reforestation after a site has been cut?" This is an important question, but it is not the only one. The fact that landowners often have a diversity of sites and forest types to manage, with a continually rotating use of cutting, planting, management, and other activities has not been adequately examined.

⁶ The capitalization rate is a form of the discount rate used to calculate present and future values.

⁷ The elimination of Maine's service forester corps in the late 1970's had some effect on the level of professional forester involvement in management, but the actual effects have not been examined in detail.

CONCLUSIONS

1. The Tree Growth Tax is a tax whose primary benefits are in the proper taxation of forest growth for wood producing purposes. The primary purpose of sound forest taxation has, in fact, been the underlying purpose of Maine's tax policy towards the forest since the 1954 Chase Law.⁸

It has important secondary benefits as a "current use" tax, which avoids the problem of development pressure, but this aspect is ultimately secondary.

2. The relationship between the tax chosen and the type of timber to be grown is critical. Different types of forests, with different rotations and different quality problems would, ideally, be taxed differently. This, of course, is not practical.

This conclusion has important, but difficult implications for the Maine forest. Historically, Maine's forest has produced very high-quality timber for use by the pulp and sawmill industries, and Maine's tax laws have basically been geared, however imperfectly, to encouraging the growing of long-rotation, high quality timber. Today's forest produces more low-quality shorter rotation wood and today's forest products industry, including biomass electric generators, uses more low-quality wood. Tomorrow's forest will be a still-unknown mix of high and low grade wood supplying a more diversified forest-using industry.

The relationship between the taxation of forests and their ability to supply a variety of wood uses, plus the recreational and other demands of a growing population, will be more complex than ever. Choices will have to be made with great care to assure that Maine's taxation of forests coincides as much as possible with Maine's demands for the forest's values. This means that we have to know what we expect to get from our forest in order to know whether we have the right tax policy.

- The tree growth tax, to the extent it is a proper tax for encouraging timber growth, has little or no effect on the forest's ability to provide recreation, but the exact effects on the provision of recreation is unknown.

⁸ The Chase Law was enacted by the Legislature in 1953. It stated that "It is declared to be the public policy of the State, by which all officials of the state and of its municipal subdivisions are to be guided in the performance of their official duties, to encourage by the maintenance of adequate incentive the operation of all forest lands on a sustained yield basis by their owners, and to establish and maintain uniformity in methods of assessment for purposes of taxation according to the productivity of the land." The law was a statement of policy only, but it was the precursor to the Tree Growth Tax Law. It was the first statement of a tax policy based on productivity by any state.

Appendix 3

UNDERSTANDING FIRE TAX

An Analysis Of The Maine Commercial Forestry Excise Tax

PREPARED BY:

**The Economics Task Group
Of
The Maine Forestry Action Forum**

October, 1987

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EXECUTIVE SUMMARY

In January 1986, the Maine Forest Service sponsored--Forestry Action Forum--created the Economics Task Group to study whether "forest fire control should be financed from a broad base tax such as property tax or general fund."

The Task Group found that principles of sound taxation require that a tax be judged upon:

EQUITY--Tax burden distributed according to benefits received and ability to pay.

CERTAINTY--The amount of tax should be predictable for both the taxpayer and the government.

NEUTRALITY--Unless intended, the tax should not interfere with economic decisions.

SIMPLICITY--Taxpayers should easily understand the law.

PRODUCTIVITY--The tax should produce sufficient stable revenue that is not affected by short-term changes in the tax base.

EFFICIENCY--Administration and costs should be fair and in proportion to revenues.

COMPETITIVENESS--The tax should reasonably compare to other states and not cause migration of residents or dislocations of economic activity.

After reviewing the history of fire control funding in Maine, funding changes over the years, other options, and the FIRE CONTROL EXCISE TAX, the Task Group concludes the FIRE CONTROL EXCISE TAX, as presently structured, does not satisfactorily meet the principles of sound tax policy. At a minimum, it has not been stable, it does not fairly apportion costs according to benefits received, and it is not easily administered. The cost of fire control should be financed from a broad base tax.

- o THE TAX IS CONFUSING AND DIFFICULT TO ADMINISTER.
- o THE TAX IS NOT LEVIED ON ALL OWNERS OF 500 ACRES OR MORE OF COMMERCIAL FOREST LAND.
- o THE 500-ACRE EXEMPTION IS UNFAIR.
- o THE NUMBER OF SEPARATE ENTITIES TAXED HAS DECLINED, THE COST OF FIRE CONTROL HAS RISEN, AND THE NUMBER OF PROTECTED AREAS HAS REMAINED THE SAME.
- o OWNERS OF 501 ACRES OR MORE IN ORGANIZED TOWNS PAY TWICE FOR FIRE PROTECTION.
- o MAINE AND OREGON ARE THE ONLY STATES THAT SUBSTANTIALLY TAX THE LANDOWNER THROUGH A PROPERTY OR EXCISE TAX.
- o THE TAX REMAINS CONTROVERSIAL AND HAS NOT PROVIDED AN ENVIRONMENT OF STABLE EXPECTATIONS.

DRAFT REPORT
ECONOMICS TASK GROUP

INTRODUCTION

In January 1986, representatives from the natural resource community participated in the Forestry Action Forum sponsored by the Maine Forest Service in the Department of Conservation. As a result of that Forum, seven Task Groups were established to carry out specific actions to address needs identified at the Forum. The Economics Task Group, one of the seven groups, was charged to study the issue of whether "forest fire control should be financed from a broad base tax such as property tax or General Fund." The Economics Task Group met throughout 1986 and early 1987. This report summarizes the Task Group's findings.

EVALUATION CRITERIA

The principles of sound taxation require that a proposed tax be judged on the elements of equity, efficiency, effectiveness, and long-range acceptability. A tax should meet certain criteria. The following classic criteria were judged by the Economics Task Group to have merit to evaluate the Commercial Forestry Excise Tax.

Equity (Fairness). A tax burden should be distributed according to the benefits received and the ability to pay. The tax should be consistent with the overall distribution objectives of the State.

Certainty (Predictability). Taxes should be designed to

give fiscal certainty to the taxpayer and the government. The rules of taxation should be clearly stated and evenly applied. In the case of property tax, appraisal of property should reflect its market value without bias.

Neutrality. Taxes should be designed to avoid unintended interference with private (consumer, worker, producer) economic decisions.

Simplicity (Convenience). Tax laws should be easily understood by taxpayers to minimize administrative and compliance costs, and to facilitate ease of payment.

Productivity. A tax should produce sufficient, stable revenue that will not have annual or short-term fluctuations from changes in the tax base.

Efficiency. Fair administration should be feasible and efficient. The administration and collection costs should not be out of proportion to the revenues.

Competitiveness. The tax rate and tax burden should compare reasonably to other states for the taxation effects on the State's economy, employment, and the migration of residents as the State competes for economic activity.

HISTORY OF FOREST FIRE CONTROL FUNDING IN MAINE

Frequent forest fires at the end of the nineteenth century caused concern about the forest. At that time, forest land-owners performed fire suppression efforts on their lands--and the costs were ever-increasing.

In 1891, the Legislature created the Maine Forest

Commission in response to public concern for the conservation of the forest. The Commission's only purpose was to evaluate the condition of the forest--including fire incidence.

Meanwhile, landowners in the unorganized towns decided to band together to support a centralized fire suppression effort because individual efforts were inefficient and costly. The Maine Forest Service (which evolved from the Maine Forest Commission) became the designated fire protection agency in 1906. Because no funds were provided by the Legislature, the landowners themselves provided funding, through a Maine Forestry District Tax (MFD), and support services to the agency. Forest fire control in the organized towns, on the other hand, was the responsibility of the individual towns.

1947 Fires

The dual forest fire control system continued until 1947, when major forest fires swept the State. Prior to 1947, the Maine Forest Service performed detection, suppression, training, and prevention only in the Maine Forestry District. The magnitude of the 1947 fires' destruction showed the need for a state-wide organization to coordinate fire protection.

After 1947, in addition to its MFD responsibilities, the Maine Forest Service was given the responsibility, by the Legislature, to coordinate protection in the organized towns and to perform suppression when the situation warranted.

While ultimate responsibility for forest fire control grew to encompass all of the State, funding did not. The Maine Forestry District continued to finance two-thirds of the Maine

Forest Service's fire control budget, with the General Fund contribution the other one-third.

Funding Changes Begin

Each year, the Legislature found itself presented with bills regarding requests to withdraw from the MFD by towns. As the number of towns in the MFD decreased, the cost to those remaining towns became too burdensome.

In 1982, the 110th Legislature established the Maine Forest Fire Control Study Commission to examine the "organization, administration, funding, and delivery of services by the Maine Forest Service's, Division of Fire Control." The Commission's report recognized the inequities of the MFD tax, recommended "that the Maine Forestry District as now constituted be abolished", and proposed financing fire control from the General Fund.

The 111th Legislature accepted the Commission's recommendation and abolished the MFD, but adopted a funding mechanism similar to that proposed in the Commission's minority report. The new tax, known as the Forest Fire Control Suppression Tax, was a two-tiered tax upon forest landowners.

In the organized towns, a tax (tier 1) was levied upon owners who had parcels of one hundred acres or more of protected land within the town. Organized towns have the responsibility to respond first to fires before the Maine Forest Service assists.

In unorganized towns, the Maine Forest Service has the responsibility for first response. Consequently, a second tax

(tier 2) was levied that was in addition to the tax for owners of parcels of more than 100 acres. This additional tax was intended to pay the State for the cost of first response.

The 111th Legislature also established the Forest Fire Control Advisory Council to oversee all aspects of administration and conduct of the State's forest fire control program. While the Council recommended funding for forest fire control from the General Fund, the Legislature, in 1985, enacted different changes in the fire suppression tax system. Among other changes, the acreage threshold for taxation purposes was raised to 500 acres, and the first 500 acres owned was exempt from taxation. This figure was for ownership in the aggregate, not ownership within a town, as the tax had been applied before. The second tax representing cost of first response by the Maine Forest Service in unorganized towns was abolished and replaced with a system whereby the unorganized towns reimbursed the State for a portion of forest fire suppression costs when fires occur.

Meanwhile, through a class action suit, certain landowners had taken the taxation issue to court. The Maine Supreme Court declared the tax unconstitutional on the grounds that, as administered, the tax was levied on the use of the land rather than the value of the land. State law maintains that a property tax must be levied on ownership of property. As administered, the tax was in reality an excise tax upon the use of the land.

Thus, the Legislature was forced to deal with the issue again. In 1986, the property tax was changed to an excise tax.

The Commercial Forestry Excise Tax was enacted. The tax is imposed on the "privilege that results in costs as well as benefits to the State" of "engaging in commercial forestry." "Persons enjoying that privilege (are) subject to the tax." (36 MRSA § 2721) Previously, the suppression tax was a property tax, but did not reflect the market value of the property--all owners paid the same amount per acre. The Excise Tax based payment on a use--that of commercial forestry.

Other Options Examined

Both the Fire Control Study Commission and the Forest Fire Advisory Council, as well as the Legislature, examined numerous options. Among the options are those listed in the following table:

| <u>Option</u> | <u>Strengths</u> | <u>Weaknesses</u> |
|---|--------------------------------|---|
| 1. Special tax on landowners and others who benefit; in form of severance tax, special industry tax, user fees. | 1. Those who benefit must pay. | 1.a. Difficult to determine who benefits and by what proportion. b. Difficult to assess all prospective taxpayers. c. Regressive. ¹ d. Uncertainty--cost of tax not known until acres reported annually. e. Revenue stream uncertain and not matched to fire control budget. |

¹In general, a tax that takes a higher percentage of low income than high income is considered regressive.

- | | | |
|--|---|---|
| 2. Property Tax | <p>2.a. Similar to town police or fire protection for those who own property. Tax based on value of property.</p> <p>b. Mechanism in place to collect tax.</p> <p>c. Broad based: all property, forested or not, contributes to payment.</p> <p>d. Certainty of tax amount.</p> | <p>2.a. Value of ownership of forest land not necessarily proportional to ability to pay tax.</p> <p>b. Non-protected property contributes to tax.</p> <p>c. Regressive tax.</p> <p>d. Necessary to update lists of owners for billing.</p> |
| 3.a. Special tax per acre on all forest land or on all land. | <p>3.a. Those who are defined in special rules must pay.</p> <p>b. Targeted payments to specific groups.</p> | <p>3.a. Administrative difficulty to define land base.</p> <p>b. Difficult and costly to collect from owners of small parcels.</p> <p>c. Does not consider "value" of the land.</p> <p>d. Unclear who benefits.</p> |
| 4. General Fund | <p>4.a. Most equitable.</p> <p>b. Administratively sound.</p> <p>c. Broad based.</p> <p>d. Progressive; based on ability to pay.</p> <p>e. Fire control treated like other services, e.g. social services.</p> <p>f. Social value of service evaluated equally with program components of government.</p> | <p>4.a. Uncertainty about proportional services to different groups or people, e.g. landowners, recreationists.</p> |

THE EXCISE TAX

The Commercial Forestry Excise Tax is "levied upon owners

of commercial forestland" (12 MRSA § 2723) possessing 500 acres or more of forestland. Presumably, owning 500 acres or more indicates that the land is being used for commercial forest activity.

The tax is levied annually. Its computation is derived as follows:

1. Each December, the Commissioner of Conservation submits the projected cost of fire control for the next fiscal year to the Legislature.
2. The Legislature approves the cost of fire control and indicates the amount which will come from the General Fund.
3. The Commissioner of Conservation certifies to the State Tax Assessor, by September, the amount needed to be raised by taxes, minus the General Fund amount. This tax amount does not include the General Fund amount appropriated for Fire Control.
4. Forest landowners file tax returns to the State Tax Assessor, by March 1, indicating the amount of land owned and any transfers of ownership, as of April 1 of the previous year.
5. The State Tax Assessor sends tax bills to landowners by April 1.
6. Commercial Forestry Excise Tax to cover costs of fire protection due May 1.

FINDINGS

Finding #1

The Tax is confusing and difficult to administer.

The tax is dependent on the State's budgetary process. That process occurs every two years. Adjustments can only occur to the second year of the biennial budget and these adjustments must be made in the Legislature's emergency sessions.

The budget is prepared on a biennial basis, meaning that a

budget is submitted for two operational years. This estimate of operating cost is almost a year before the costs are incurred for the first year of the biennial budget and almost two years for the second year of the biennial budget estimate. Because the tax is collected ten months into the fiscal year, the taxes are collected almost two and three years respectively after the biennial budget estimate is prepared. Figure 1 illustrates this calendar of events.

The result is that few landowners and state or local officials fully comprehend the tax's rationale, calculation, timing or administration.

Figure 1.

COMMERCIAL FORESTRY EXCISE TAX CALENDER OF EVENTS

| CALENDAR YEAR | 1ST QUARTER JAN FEB MAR | 2ND QUARTER APR MAY JUN | 3RD QUARTER JUL AUG SEPT | 4TH QUARTER OCT NOV DEC | STATE FISCAL YEAR |
|---------------|--|--|---|---|-------------------|
| CY86 | | | D.O.C. BUDGET FOR FY 88-89 SUBMITTED TO GOVERNOR | D.O.C. CONFIRMS FIRE CONTROL COSTS FOR FY 88 TO LEGISLATURE | FY87 |
| CY87 | GOV'S BUDGET FOR FY 88-89 SUBMITTED TO LEGIS | LEGISLATURE APPROVES BUDGET & FIRE CONTROL FY 88 & 89 | TAX ASSESSOR GETS AMOUNT TO COLLECT FOR FY 88 FROM D.O.C. | DOC CONFIRMS FIRE CONTROL COSTS FOR FY 89 TO LEGISLATURE | FY88 |
| CY88 | OWNERS CERTIFY OWNERSHIP FOR CY 87 * | BILLS FOR FY 88 SENT TO OWNERS TAX FOR FY 88 PAID FOR CY 87 OWNERSHIP ** | LEGIS APPROVES FIRE CONTROL COST FOR FY 89 TAX ASSESSOR GETS AMOUNT TO COLLECT FOR FY 89 FROM D.O.C. | | FY89 |
| CY89 | GOV'S BUDGET FOR CY 90-91 SUBMITTED TO LEGIS | OWNERS CERTIFY FOR CY 88 BILLS FOR FY 89 SENT TO OWNERS TAX FOR FY 89 PAID FOR CY 88 OWNERSHIP | | | FY90 |

* TAX FOR FY 89 THAT IS PAID IN CY 88 IS BASED ON OWNERSHIP OF CY 87

** TAX FOR FISCAL YEAR PAID TEN MONTHS INTO THE FY THAT THE COSTS OCCUR. THUS PAYMENT FOR SERVICES OCCURS AFTER 83% OF THE SERVICE IS RENDERED. TAX IS PAID BASED ON OWNERSHIP OF THE PRIOR YEAR.

Finding #2

The Tax is not levied upon all owners of 500 acres or more of commercial forestland.

The statute states that the tax shall be levied upon owner of 500 acres or more of commercial forestland. "Covenants of property, whether joint tenants or tenants in common, shall be treated as one person." But the Tax, in fact, is administered as accounts rather than individuals, because the existing records are kept on a town basis, not according to individual owners.

An account may consist of several different landowners jointly sharing a parcel of land. Some landowners share numerous parcels of land with diverse landowners and in varying proportionate ownerships.

The ownership pattern in the State and the method of taxing the various entities has led to inequitable payment of the Commercial Forestry Excise Tax. Using a hypothetical example:

Landowner A owns 5,000 acres. Because this landowner is a single entity, she will be taxed on 4,500 acres (the first 500 acres are exempt.) The total tax bill at 24.6 per acre (the 1986 rate) would be \$1,107.

In another example, Landowner B also owns 5,000 acres, but pays \$0. Here is how:

Landowner B owns eleven parcels jointly with another landowner.

TABLE 1.

| ACCOUNT | LANDOWNER B | LANDOWNER C | TOTAL | TOTAL EXEMPT |
|---------|---------------------|-------------|-------|--------------|
| | ----- (ACRES) ----- | | | |
| #1 | 495 | 5 | 500 | 500 |
| #2 | 490 | 10 | 500 | 500 |
| #3 | 485 | 15 | 500 | 500 |
| #4 | 480 | 20 | 500 | 500 |
| #5 | 475 | 25 | 500 | 500 |
| #6 | 470 | 30 | 500 | 500 |
| #7 | 465 | 35 | 500 | 500 |
| #8 | 460 | 40 | 500 | 500 |
| #9 | 455 | 45 | 500 | 500 |
| #10 | 450 | 50 | 500 | 500 |
| #11 | 275 | 225 | 500 | 500 |
| Total | 5,000 | 500 | 5,500 | 5,500 |

In summary, no practical mechanism to fairly apportion taxes exists when there are minimum acreage exemptions and mixed ownership patterns.

Finding #3

The 500-acre exemption is unfair.

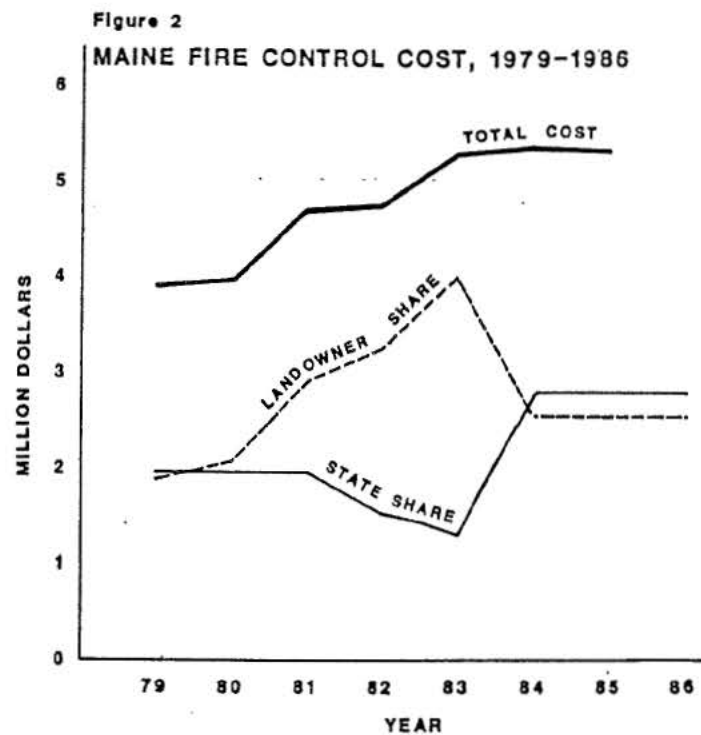
The legislative basis for the 500-acre exemption is arbitrary. Previous to the enactment of the Commercial Forestry Excise Tax, a 500-acre exemption was repealed for the Tree Growth Tax Law, because the 500-acre exemption did not allow all landowners to participate in Tree Growth.

Finding #4

The total cost per acre of fire control has risen. The number of acres protected has remained the same. Federal contribution to the cost has declined. And the number of separate entities taxed has declined.

The cost of fire control, approved by the Legislature, has risen on the average 6.9% per year. Because the State now funds

one-half the fire control costs (formerly one-third), the General Fund contribution has risen. (Figure 2. and Table 2.)



The federal contribution has declined considerably and is not likely to increase (Figure 3.). Indeed, further decline is likely.

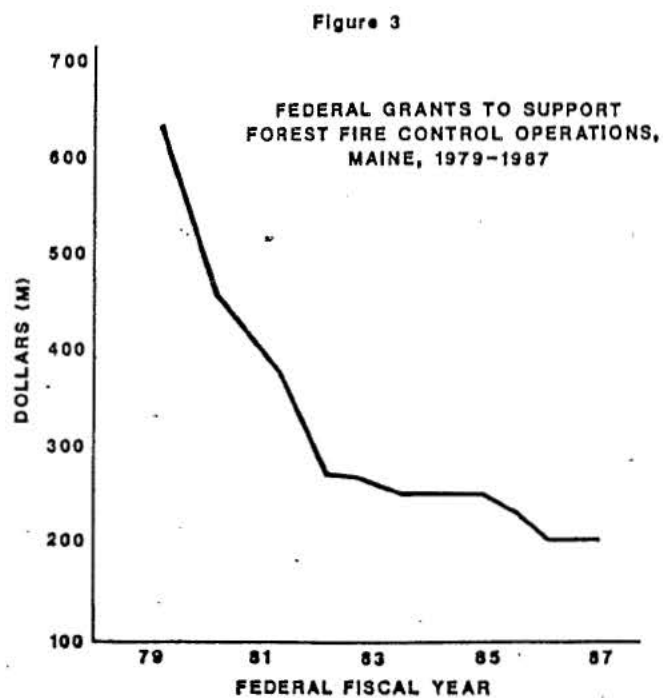


TABLE 2.
FOREST FIRE CONTROL COST ANALYSIS

| CALENDAR YEAR | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1986 | 1987 |
|---|-------------|---------------------|---------------------------|---------------------------|--|-------------|-------------|-------------|
| State Fiscal Year | FY '80 | FY '81 | FY '82 | FY '83 | FY '84 | FY '85 | FY '86 | FY '87 |
| ***** | | | | | | | | |
| APPROPRIATION | | | | | | | | |
| Original | \$4,038,924 | \$4,116,355 | \$4,710,331 | \$4,689,449 | \$5,601,832 | \$5,737,082 | \$5,410,051 | \$6,297,098 |
| Supplemental | \$23,050 | \$17,750 | \$1,541 | \$65,152 | \$13,182 | \$13,414 | | (\$46,828) |
| Deappropriation | (\$165,000) | (\$150,360) | | | (\$303,069) | (\$352,731) | (\$68,758) | (\$71,147) |
| NET APPROPRIATION | \$3,896,974 | \$3,983,245 | \$4,711,872 | \$4,754,601 | \$5,311,945 | \$5,397,765 | \$5,341,293 | \$6,179,123 |
| ===== | | | | | | | | |
| LEGISLATIVE set amount to be raised (exc. "other" income) | | \$.213 cents/ac | \$2,868,056 Change MFD | \$3,238,087 Change MFD | \$3,250,000 plus \$.09/ac 1st response | \$5,115,000 | \$5,078,103 | \$5,370,231 |
| BUREAU OF TAXATION | | | | | | | | |
| Total Tax Collected | \$1,899,780 | \$2,021,357 | \$2,880,056 | \$3,238,303 | \$4,000,475 | \$2,561,825 | \$2,539,052 | \$2,933,944 |
| % Net App as TAX | 49% | 51% | 61% | 68% | 75% | 47% | 48% | 47% |
| % Net App GEN FUND | 51% | 49% | 39% | 32% | 25% | 53% | 52% | 53% |
| ----- | | | | | | | | |
| TAX RATE | 4.5 mills | \$.213 | \$.298 | \$.347 | \$.253 | \$.249 | \$.246 | \$.295 |
| Surcharge | | | | | \$.090 Unorganized | | | |
| units | 100% Eval. | per acre | per acre | per acre | per acre | per acre | per acre | per acre |
| Date Tax Due | Oct 1 '79 | Oct 1 '80 | Oct 1 '81 | Oct 1 '81 | Dec 31 '83 | Dec 1 '84 | May 1 '86 | May 1 '87 |
| ===== | | | | | | | | |
| TAXED ACRES | ???? | ???? | 9,689,561 | 9,340,021 | 12,858,904 | 10,288,033 | 10,449,674 | 9,963,556 |
| PROTECTED ACRES | 17,000,000 | 17,000,000 | 17,000,000 | 17,000,000 | 17,000,000 | 17,000,000 | 17,000,000 | 17,000,000 |
| UNTAXED ACRES | | | 7,310,439 | 7,659,979 | 4,141,096 | 6,711,967 | 6,550,326 | 7,036,444 |
| Cost/Prctcd Ac | \$.23 | \$.23 | \$.28 | \$.28 | \$.31 | \$.32 | \$.31 | \$.36 |
| Cost/taxed acre | | | \$.30 | \$.35 | \$.31 | \$.25 | \$.24 | \$.29 |
| Cost/untaxed acre | | | \$.25 | \$.20 | \$.32 | \$.42 | \$.43 | \$.46 |
| ----- | | | | | | | | |
| NUMBER OF TAX BILLS | | | | | NA | 3,000 | 1,539 | 1,154 |
| NUMBER OF ACCOUNTS | | | | | 14,906 | 2,113 | 883 | 623 |
| ***** | | | | | | | | |

1974-1982 Tax was from Maine Forestry District

1983 Tax was \$.253/ac for fire control on all ownerships
over 100 acres plus \$.09/ac on all ownerships over 100acs
in unorganized townships.

1984 Tax was \$.249/ac on all ownerships over 500 acres.

1985 No tax was paid in 1985

1986 1983 & 1984 tax was rebated. Cost of '83, '84, & '85
fire control was charged to owners of record in 1985.
This was paid in May of 1986.

1987 Tax/ac to all ownerships greater than 500 acs/township
of "commercial forest land."

When the taxable acreage threshold was 100 acres, 14,906 accounts were sent tax bills by the Bureau of Taxation. The figure declined to 623 accounts since when the 500-acre threshold was instituted.

Currently, taxes are assessed on only 61% of the total number of protected acres; the remaining acres are exempt.

Finding #5

Owners of 501 acres or more (the first 500 acres are exempt) in organized towns pay twice for fire protection.

In organized towns, the local fire department has the responsibility for first response to all fires regardless of whether a structural or forest fire. Property owners pay for this protection through local property taxes. Only in cases when the seriousness of a situation warrants does the State, through the Maine Forest Service, assume primary responsibility.

In unorganized towns, the State has primary responsibility for all fires, because these towns are unable to provide service themselves.

Thus, property owners in organized towns pay twice for fire protection--once through their local property tax and again through the Commercial Forestry Excise Tax.

Finding #6

In a comparison of selected states' fire control funding mechanisms, Maine and Oregon are the only states that substantially tax the landowner through a property or excise tax.

The Economics Task Group examined other states' forest fire protection funding mechanisms. The criteria considered for comparison were:

- a. Amount of forested land.
- b. Amount of private non-industrial land.
- c. Amount of private industrial land.
- d. Amount of state and other publicly owned land.
- e. Amount of federal land.

The states that compared closest in the above criteria are shown in Table 3.

Finding #7

The Tax continues to be controversial.

Since 1983, the Tax has been under scrutiny. It has been changed considerably in three legislative sessions and has been successfully challenged in court. Together with debates over, and changes in, the Tree Growth Tax Law, the changes in the Commercial Forestry Excise Tax rules and rates have meant that Maine has been unable to provide an environment of stable expectations as to levels of taxation for woodland owners.

CONCLUSION

The Economics Task Group of the Forestry Action Forum concludes that the Commercial Forestry Excise Tax, as presently structured, does not satisfactorily meet the principles of a sound taxation policy. At a minimum, it has not been stable, it does not fairly apportion costs according to benefits received, and it is not easily administered. The cost of fire control should be financed from a broad tax base.

TABLE 3.

FIRE CONTROL COSTS FOR COMPARATIVE FORESTED STATES

| | MAINE | NEW HAMPSHIRE | VERMONT | NEW YORK | MICHIGAN | MINNESOTA | WISCONSIN | GEORGIA | OREGON | SO. CAROLINA |
|---|--|--|---|---|--|---|---|--|--------|--------------|
| Forest Land State Protected (million acres) | 17.6 | 4.1 | 4.5 | 17.0 | 19.6 | 22.8 | 17.0 | 27.0 | 16.0 | 12.0 |
| 1985 Fire Control Budget (M\$) | 6,000 | 600 | 206 | 4,788 | 6,351 | 2,528 | 5,520 | 17,758 | 13,502 | 10,238 |
| Fire Control Cost/Protected Ac | \$.34 | \$.15 | \$.05 | \$.28 | \$.32 | \$.11 | \$.32 | \$.66 | \$.84 | \$.85 |
| FUNDING SOURCES | | | | | | | | | | |
| Federal | 7.4% | 12.3% | 19.0% | 10.0% | 7.0% | 28.7% | 6.4% | 2.5% | 1.8% | 2.8% |
| State General Fund | 46.3% | 82.0% | 80.0% | 90.0% | 88.0% | 71.3% | 93.6% | 91.0% | 25.0% | 97.2% |
| State Property Tax | 46.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 6.5% | 67.4% | 0.0% |
| Other | 0.0% | 5.7% | 1.0% | 0.0% | 5.0% | 0.0% | 0.0% | 0.0% | 5.8% | 0.0% |
| Total Funding | 100% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| NOTES | Prop tax to land owners of more than 500 forest acres | 5.7% tax on timber in unorganized townships Organized towns pay 50% of cost for fires in town | 1% donations from VTOA Personnel also work on non- suppression forestry activities Towns respon- sible for total suppression costs until cost reaches preset limits | Local Gov't. pays 50% of cost for local fires | 4% from fish & game fund 1% from State Land Timber Sales | All property County tax inc- (land & homes) ludes 4 cents per forest acre | County tax inc- ludes 4 cents per forest acre | Prop. tax assessment varies by location-- minimum of \$15 per landowner 5.8% slash hazard tax for owners & operar- ators that produce hazard- ous slash | | |

APPENDIX

TASK GROUP MEMBERS

LLOYD IRLAND, CHAIRMAN - PRESIDENT - THE IRLAND GROUP
FORMER STATE ECONOMIST

RONALD LOVAGLIO - INTERNATIONAL PAPER COMPANY

KAREN LAZARETH - FINANCE AUTHORITY OF MAINE

DAVID DORR - FORMER CHIEF FINANCIAL OFFICER, MERRILL BANKS

STAFF

JAN SELSER - MAINE FOREST SERVICE

STEVE OLIVERI - MAINE FOREST SERVICE

JAN GOOLD - INTERNATIONAL PAPER COMPANY

Appendix 4

APPROVED

CHAPTER

JUN 29 '87

67

BY GOVERNOR

RESOLVES

STATE OF MAINE

IN THE YEAR OF OUR LORD
NINETEEN HUNDRED AND EIGHTY-SEVEN

S.P. 632 - L.D. 1853

Resolve, Establishing the Maine Commission
of Forest Land Taxation.

Emergency preamble. Whereas, Acts and resolves of the Legislature do not become effective until 90 days after adjournment unless enacted as emergencies; and

Whereas, recent changes in federal tax policies, economic conditions and international competition have raised questions about the relationship between the State's tax policies with regard to forest land; and

Whereas, this relationship needs careful and immediate study in order to provide recommendations to the Second Regular Session of the 113th Legislature; and

Whereas, in the judgment of the Legislature, these facts create an emergency within the meaning of the Constitution of Maine and require the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore,

Commission established. Resolved: That there is created the Maine Commission on Forest Land Taxation; and be it further

Purpose. Resolved: That the purpose of the commission is to examine the present aggregate level of taxation on Maine forest land and to determine whether present tax policies impede long-term investment need to sustain the forest economy of the State; and

be it further

Duties and responsibilities. Resolved: That the commission shall review the total tax burden affecting forest land ownership, management, the relationship between taxation and management activity and whether combined state and federal tax policies act to encourage or discourage long-term forest management and maintenance of a stable land base.

The commission shall file a preliminary report no later than December 15, 1987, and a final report no later than January 15, 1988, and shall make such recommendations therein as it deems necessary to encourage long-term investment in Maine's forest; and be it further

Appointment. Resolved: That the commission shall be composed of 5 members of the House of Representatives appointed by the Speaker of the House and 3 members of the Senate appointed by the President, all of whom shall be members of either the Joint Standing Committee on Taxation or the Joint Standing Committee on Energy and Natural Resources. In addition, there shall be 5 public members appointed by the Governor, one of whom shall be a certified public accountant with experience in forest taxation, one of whom shall be a representative of small woodlot owners, one of whom shall be a representative of a large nonindustrial ownership, one of whom shall be a forest landowner engaged in manufacturing of forest products, one of whom shall be a faculty member of the College of Forest Resources of the University of Maine with expertise in forest economics. The Commissioner of Conservation and the Director of the State Planning Office or their designees shall serve ex officio; and be it further

Staffing. Resolved: That the commission may request staff assistance from the Legislative Council. The Department of Finance, the Department of Conservation and the State Planning Office shall provide assistance as requested from time to time by the commission; and be it further

Appropriation. Resolved: That the following funds are appropriated from the General Fund to carry

out the purposes of this Act.

1987-88

LEGISLATURE

Commission on Forest
Land Taxation

| | |
|-------------------|---------|
| Personal Services | \$2,640 |
| All Other | \$6,400 |

| | |
|-------|----------------|
| Total | <u>\$9,040</u> |
|-------|----------------|

Provides funds for
per diem for legis-
lative members,
travel and related
expenses of the com-
mission.

Emergency clause. This resolve shall take effect
when approved.'

MAINE COMMISSION ON FOREST LAND TAXATION
(Resolve 1987, ch 67)

MEMBERSHIP

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Sen. Charlotte Z. Sewall
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Ex officio

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