

APPENDIX D. CASE STUDIES IN LAND USE CHANGE: OVERVIEW OF THE NORTHERN FOREST LANDS

Report to Northern Forest Lands Study
by the Irland Group, Augusta ME

This appendix summarizes the principal conclusions from five local case studies, published in full in a separate document. Five study areas were selected from across the Northern Forest Lands Study region. They broadly represent the types of land use and subdivision activity occurring across the region. Data collected from each of the study areas allow us to track the conversion of rural and wooded land to subdivided tracts. The research is an intensive case study approach and is not a statistical sample which can be mathematically extrapolated to yield estimates of subdivision activity in the region as a whole. In this summary, we also draw extensively on other work we have done that helps form a basis for our judgments and conclusions.

The goal is to understand how the market for rural and wooded land for subdivision works in this region. We interviewed land sellers and subdividers, and collected data on total acres purchased, number of lots created, and the amount of buildout that has occurred. Time and cost constraints limited primary data gathering to three towns in each case study area. The same constraints meant that only a sample of parcel sellers and subdividers was contacted. The ultimate buyers of subdivided lots were not contacted, as the funding and schedule for the research could not include the dynamics of demand for the final product--subdivided lots.

The well-known areas where vast amounts of development have occurred--the "horror stories" of rural land development--were not included. Many of these are not located in the Northern Forest Lands Study region. In most cases they are not representative of the types and amount of subdivision and development that are occurring across the study region as a whole. But within the case study areas, we sought out the towns most affected by subdividing.

This case study synthesis describes the conversion process of rural and wooded lands to subdivided tracts--as this process has occurred recently in a sample of forested areas. Detailed assessments of the many economic, aesthetic, social, and environmental impacts of wildland subdivisions are not within the scope of the work. Our Regional Lot Market Study discusses the future of the regional market for wildland subdivision lots. That report is available separately.

A. THE STUDY AREAS

Initially, six case study areas were selected from the entire study region. The case study areas were reviewed by the Governors' Task Force on Northern Forest Lands and by individuals in state agencies and universities. We think these areas fairly represent the general types of wildland subdivision activity occurring in the entire study region. The westernmost planned case study area in New York was eliminated due to time and cost constraints, so that five case study areas remain.

During the 1980's, the 5 case study areas grew in population at slower rates than did their corresponding states. They had higher unemployment rates, and in each case except Essex, NY, depended more heavily upon manufacturing than the states as a whole (Tables 1-3).

Franklin County, Maine The Carrabassett Valley region in Franklin County is dominated by Sugarloaf USA, a large ski resort. The Appalachian Trail, fishing and kayaking on the Carrabassett River, snowmobiling, hunting, and a well-respected golf course add to the area's recreational opportunities. The area is heavily forested; several major forest products companies and the Penobscot Indian Nation own substantial timberland.

Table 1. Case Study Areas: Population 1980-1987.

	1980	1987	% of Change
Washington County	34,963	34,300	-1.9
Franklin County	37,447	38,600	4.2
Maine	1,125,043	1,187,000	5.5
Coos County	35,014	34,168	-2.5
New Hampshire	920,479	1,057,000	14.8
Orleans County	23,440	24,095	2.8
Vermont	511,456	541,000	5.8
Essex County	36,176	36,656	1.3
New York	17,558,165	17,825,400	1.5

We studied Kingfield, Carrabassett Valley and Eustis in detail. The populations of these towns have fluctuated over the course of the century. But between 1980 and 1986, Carrabassett Valley's population grew 21%, the fastest of the three towns. The populations of Eustis and Kingfield grew 13% during that period. Sawmills and wood products plants in Kingfield, Stratton, and Eustis, as well as a large hotel dating to the early 1900's are major employers, and a large wood-fired generating plant came on line in fall 1989. In Carrabassett Valley, there is virtually no employer that cannot be directly tied to support of the ski area. There

is no direct interstate highway link to the study area, though I-95 serves Waterville, 45 miles away.

Washington County, Maine This is the nation's easternmost county, bordering on New Brunswick, Canada. The county is remote and heavily forested, with 86% of its total acreage classified as commercial forest land. The largest employer is Georgia-Pacific, employing approximately 1,000 in its Woodland mills. Wood products mills and logging employ several thousand more. Fishing and blueberry production are also major industries.

Washington County is comprised of 43 organized towns and 36 unorganized townships (towns which lack local governments). It is one of Maine's most sparsely populated counties, with a population density of 13 people per square mile. The county experienced population growth between 1970 and 1980, in contrast to a steady decline between 1900 and 1970. The population has since declined from its 1980 peak.

No interstate connects the county with the rest of the state. But the natural beauty of the coastline and the recreational opportunities offered by lakes and rivers are major attractions to summer and fall tourists. The county's coastal areas are not included in the study area because factors affecting the coastal lot market are quite different from those affecting inland areas. The

Table 2. Socio economic indicators compared to entire states.

Income	Per Capita Rate (1986)	Unemployment Wage in Mfg. (1988)	Average Weekly Wage (1987)
Washington County	10,284	10.6 ¹	389.55
Franklin County	10,511	4.7 ²	450.93
Maine	12,846	4.8	408.69
Coos County	13,114	3.4 ³	473.16
New Hampshire	16,328	2.5	471.01
Orleans County	10,331	5.3 ⁴	302.21
Vermont	13,342	2.9	456.31
Essex County	11,620	5.8	504.29 ⁵
New York	16,800	4.1	498.23 ⁵
¹ For Calais-Eastport Labor Market Area		⁴ For Newport Labor Market Area	
² For Farmington Labor Market Area		⁵ For 1985	
³ For April, 1989			

case study area has little destination resort activity, but has seen significant subdivision activity. The towns studied were Beddington, Danforth and Northfield.

Coos County, New Hampshire Coos is the northernmost county in New Hampshire. Development in the southern part of the county has been based on industry and tourism, while the northern portion of the county remains wild. There is no interstate link through the county, but I-93 ends just south of the county line.

The county is heavily forested, with 88% of the land area classified as timberland. The county's economy is driven by the forest products industry, including paper mills in two towns and several sawmills. The tourist trade is also important. Tourists are attracted to the county for boating, camping, hunting, hiking, fishing, skiing and snowmobiling. Part of the White Mountain National Forest lies within Coos County and is important to the area for recreational uses.

The towns of Pittsburg, Milan and Whitefield were studied in detail; Berlin, Errol, Lancaster, Jefferson, Colebrook, Randolph, Carroll and Gorham were studied in a more general way.

Orleans County, Vermont Orleans County is situated on the Canadian border, with interstate links to metropolitan areas northward and southward. Dairy farming is a major industry, but the number of dairy farms has declined in recent years. A large proportion of land being subdivided has been owned (and often is subdivided) by farmers. For the first half of the 1980's, growth in population and housing was the slowest in the state. Recently, however, many sectors of the area's economy are growing.

The towns of Albany, Derby and Barton were considered in detail. Apart from farming, there is little industry located in Albany, and most workers commute to area jobs. Barton is classified as a "job center," meaning that the number of jobs available within the community exceeds the resident workforce. Farmland dominates the northern and western portions of Barton, and the southern and eastern portions are more mountainous and wooded. Derby is a well-established commercial center; nearby Lake Memphremagog offers year-round recreation. Much of the town is actively farmed.

Essex County, New York Essex County displays a diversity of natural amenities, and is set in a region of well-known natural attractions and long-established resorts. It contains the headwaters of the Hudson River, the Ausable River, Lake Placid, Schroon Lake and many smaller lakes and streams. Interstate 87 connects the area to the metropolitan regions of New York and Montreal. Approximately 45% of the county is state-owned, and two-thirds of the state-owned land is designated "forever wild."

The prospering recreation industry around Lake Placid and to the south around Lake George is not typical of this region. Ten of the county's 18 towns have lost residents since 1980. Often these communities were supported by one or two major industries. As the industries faltered, as in the mining communities of Moriah and Newcomb, residents moved elsewhere for employment. However, the county's overall population has been rising; as job growth has exceeded population growth, unemployment is falling. Government and services are the major employers. The towns studied were Elizabethtown (county seat), Jay and Minerva.

Table 3. Employment by Sector, Compared to State.

	(% of Total) 1987			
	Manufact.	Fire ¹	Service	Govt.
Wash. County ²	23	2.2	18	24
Franklin County ³	37	3.5	20	15
Maine	20	4.8	21	20
Coos County ⁴	34	3.5	26	14 ⁵
New Hampshire ⁴	27	7.1	25	9 ⁵
Orleans County	32	3.5	24	20
Vermont	21	4.9	24	15
Essex County	11	2.4	36	21
New York	15	9.8	27	17

¹ Includes financial, insurance and real estate institutions
² Calais-Eastport Labor Market Area
³ Farmington Labor Market Area
⁴ Figures are for first quarter, 1988
⁵ Figures are for local government only

B. METHODS

Our research describes examples of the effects of and reasons for the subdivision of rural and forested land in northern New York and New England towns from 1980 to 1989. This section briefly summarizes how we gathered the information.

Data Sought The lack of available data at the county level forced us to focus on selected individual towns within the study areas. We chose towns to best illustrate the transformation of forest land into subdivided lots. We sought information on:

- Total number of subdivisions created per year;
- Number of building permits per year;
- Number of acres subdivided per year, specifying how much of that acreage was from commercial forest land;
- Location of the subdivisions in town, to determine what types of land are being subdivided (waterfront, remote, road frontage, etc.);
- Lot sales;
- Extent of build out;
- Descriptions of sellers, purchasers and subdividers of the land; and
- State and local subdivision regulations.

To the extent possible, uniform data were collected across the study areas. Many detailed local records of subdivisions do not exist; and those that do were in various states of order. Different sources were contacted for information in order to supplement official records. Realtors, regional planning commissions, state planning offices, town clerks, planning boards, and tax assessors provided our primary data.

To understand the conversion process itself and the firms involved, we sampled sales of forest land to subdividers. We then extensively interviewed both buyer and seller when they could be reached. This enabled us to achieve a far richer understanding of the market than would have been possible on the basis of official records alone.

Selection of Sample Towns The intent was to study the general forest area of the region and not the well-publicized "hotspots" of development and subdivision. We also did not focus our

research on any one particular land developer. But we did seek case towns that had seen active subdividing. In this sense, our results may depict upper limits of what has been happening on a town-by-town basis.

Areas like Lake George and Lake Placid, Lakeville Plantation, and Moosehead Lake, among others, were not included in our research. These "hotspots" are exceptional. In Hartland, Maine, for example, the massive scale of a proposed subdivision compared to the small size of the town gave the impression that valuable forest land throughout the northeast is being divided and sold at a rapid pace. The subdividing of remote shoreline of Moosehead Lake, Maine's largest lake, gives the impression that development strips the local economy of its diversity, leading to a tourist-based economy. The bustling appearance of a major resort area like Lake Placid leaves the impression that all subdivision and development give rise to new towns of condominiums and townhouses.

We sense that there has been a tendency to generalize a bit too much from the best-publicized examples of development pressure in the region. Certainly what we see in our case study areas offers strong contrasts which may help observers to reach a more balanced view of what is happening.

C. GENERAL FINDINGS

It is our belief that the subdivision of forest land has been occurring in the region at an unprecedented pace. The new wave of "strip development" has moved from southern urban centers to traditional northern resort areas like North Conway, New Hampshire, and Greenville, Maine. Rural suburbs are becoming more common. This is producing a spillover effect. Recreationally valuable lands in the northern reaches of New England and New York are being subdivided--privatized, in a word--so that individuals may secure their share of a diminishing amenity resource.

Is the amount of subdivision that is occurring significant enough to negatively affect the many values of the forest resource and the life-style of local residents in northern New England and New York? The answer lies in the hands of the owners and their decisions about the stewardship of the land. So, it is crucial to understand the

Table 4. Subdivision Activity, 1980-1989.

	Franklin County	Washington County	Coos County	Orleans County	Essex County
Number of Subdivisions Studied		28	129	43	18
Number of Acres	1,000	17,355	13,788	5,609	1,148
Number of Lots	326	532	1,740	318	126
Average Lot Size	10	40 ^I	8	18	9
Percent Sold	57	Most	60	75	56
Peak Year	1988	1986	1987	1987	1989
Average from Commercial Forestland	600			2,375	641

^I 60 percent of lots are 40+ acres

underlying ownership patterns of the land and the ways its uses and ownership are changing.

The recent boom in forest lot subdivisions is only one of many land booms in New England's history. But the current boom has raised particularly strong concerns in many quarters, especially as nonresidents purchase more and more wildland, and as access to forest and water becomes more limited. With the completion of interstate and major secondary highways, the land boom has reached into the remotest parts of the region for the first time (Table 4). This is a critically important new development which invalidates the common view of "we've seen this before".

Demand Factors The potential demand from residents of southern New England and the Mid-Atlantic states is enormous. There is also an increasing preference for a rural lifestyle and the means to pay for living it on weekends.

As incomes and housing prices have risen rapidly in those urban areas, so too has the demand for recreational property in the NFLS region. Homeowners are able to take out home equity loans and purchase desirable land, especially water frontage. This trend was accelerated by the stock market "crash" of 1987, when investors began diversifying their portfolios to include land as an investment. Also, the Tax Reform Act of 1986, provided a strong incentive for individuals to sell land in 1986 before the capital gains preference was eliminated. In addition, strong marketing efforts by large land development corporations attracted buyers. Especially in Washington County and Pittsburgh (Coos County), 1986 was a year of

unprecedented subdivision activity. Finally, growing numbers of households are entering age groups likely to purchase lots. Many of these families have two incomes and can pay cash for lots. But many larger subdividers will finance purchases on generous terms.

By winter 1990, it became clear that all of New England was experiencing a decisive pullback in all real estate markets. This pullback is mirrored in the market for wildland lots as well.

One salient feature of the market is the maze of state and local regulations controlling subdivisions. Our interviews indicate that the state regulations may discourage some small owners from subdividing. It is easier for them to sell out to larger land development companies. But it is not clear that the total acreage subdivided has been much affected. As fewer of these available tracts remain, at attractive prices, large land corporations will increasingly be the principal subdividers in the future.

In a similar vein, Vermont's Act 250 and Maine's 40-acre subdivision regulation (which exempt subdivisions larger than 10 and 40 acres, respectively, from state regulatory control) may have caused more acreage to be developed than would have been otherwise, as these regulations encourage larger subdivisions (measured in acres) than may have occurred without regulation, and larger lots than customers say they want.

In New York, the Adirondack Park Agency strictly controls land use and planning. Local real estate professionals agree that local demand for affordable housing exceeds supply and that

the supply of housing lots--for local or seasonal use--is constricted by APA regulations.

Community Responses to The Land Boom A major factor in the future supply of land for subdivisions will be the extent to which local governments become more involved in regulating subdivisions and in zoning. Few towns had even minimal planning and subdivision standards in effect during the early 1980's. Some still don't.

But the land boom of the mid-1980's has prompted some towns to institute land use regulations. For example, Northfield (Washington County) instituted Land Use Ordinances, including a Large Lot Review Ordinance in 1987. Kingfield enacted a subdivision moratorium in 1988 to halt further subdivision activity until an outdated 1973 comprehensive plan had been revised in March 1989. The new comprehensive plan includes a subdivision ordinance requiring approval of a subdivision plan by the town's planning board. In Coos County's unorganized towns, a state-mandated planning and zoning effort is underway.

Across the region, strong vocal minorities continue to oppose any form of land use regulation or control. In limited instances such local reactions have even rolled back regulations.

At the same time, states have made funds and technical assistance available for town planning in order to address land use, growth management, affordable housing, and related issues.

Finally, no level of government is doing an adequate job of monitoring changes in land use, ownership and fragmentation. In each state, no single agency is responsible for tracking subdivision and development activity or for proposing policy options for dealing with the current land boom...or its future recurrences.

D. SPECIFIC FINDINGS: INITIAL IMPRESSIONS ARE UNRELIABLE

Reading the news and commentary about the current land boom, one forms a number of impressions about land sales trends in the study area. In our case study areas, almost all of these impressions were found to be false or misleading in important ways. Impressions that are becoming "common knowledge" may be accurate only in a limited number of areas. The regional situation is more complex than it appears at first glance.

Table 5. Characteristics of subdivisions and subdividers, 1980-1989.

	<u>Franklin</u>	<u>Washington</u>	<u>Coos</u>	<u>Orleans</u>	<u>Essex</u>
Kinds of Developers	Local	Local & Land Devel. Corp.	Local	Local	Local
Areas Affected	Road Frontage	Lake Frontage	Road Frontage	Farmland, Frontage, & Forest	Road Frontage
Principal Use	Residential	Recreation	Recreation	Recreation	Recreation
Amenity	Skiing	Lakes & Rivers	Lakes & Wilderness	Scenery	Scenery
Hours to Nearest Urban Area	5.5-Boston	6-Boston	3-Montreal	3.5-Boston 2.5-Montreal	2.25-Montreal 5.25-NY City
Community Response	Moratorium 1988	Large Lot Ordinance	Opposed	Implemented Zoning	Planning & Zoning

HYPOTHESIS 1: Subdivision activity is not dominated by land development companies.

With the exception of Washington County, our case studies showed that small, local owners were more numerous and accounted for more acreage subdivided than did large, out-of-state corporations (Table 5). For these small land owners, the market has "ripened:" the land that they have held for many years is in strong demand and prices have risen high enough to prompt them to sell out or to subdivide themselves.

In the Carrabassett Valley area, nearly all of the subdivisions were created by people whose residence or business address is in the study area. Many lived in the same town. In Orleans County, Vermont, 72% of subdividers were private individuals (77% lived locally), and 70% were first-time subdividers. And 49% did not buy the property with the intention of subdividing. In the three towns in Essex County, New York, 53% of the subdividers were private individuals. Fully 88% were from Essex County or a neighboring county. Over half (59%) were first-time subdividers. In Washington County, 10 of the 28 subdivisions studied were undertaken by land sales corporations which operate in Maine and out of state as well. Those ten subdivisions accounted for 80% of the total acres subdivided in the study towns. An additional 13% of total acres studied was subdivided by a Maine company.

HYPOTHESES 2: Forest industry land is not being sold on a large scale to subdividers. In our cases, forest industry land has usually not been available for sale and this has in fact been a major constraint to subdividers. In Washington County, industrial owners of forestland have not been active in the subdivision and sale of land. Only two parcels were sold by an industrial owner and then subdivided during the study period. (Since our fieldwork was finished, a smaller nonindustrial ownership, Downeast Timberlands, was broken up; most of it was sold.) Land trades with the State of Maine to consolidate public land ownerships dominated transactions in the early 1980's. Other transactions by industrial owners have been largely limited to sales of small parcels to adjacent owners for personal use.

In the town of Carrabassett Valley, neither the paper companies nor the Penobscot Indians have

yet been willing to sell their large landholdings to subdividers, even in the face of strong demand generated by Sugarloaf Mountain visitors and fall color tourists.

The Diamond Occidental land sale of 1988 produced speculation that much of the land would be subdivided and developed. This has not yet proven to be true. Of Diamond's 986,000 acres (all within the Northern Forest Lands Study region), 44% have been sold. Of that land sold, 80% will remain commercial forest land for the foreseeable future.

In other work, we have seen that most of the major forestland transactions are between industry buyers and sellers or to states and conservation groups. The well-publicized large developers often obtain land from smaller nonindustrial owners or others but only rarely from the Fortune 500 corporations.

The importance of forest industry ownerships varies across the region, as indicated by the data for the early 80's for Forest Survey units (which only roughly coincide with our study areas):

<u>State</u>	<u>Unit/County</u>	<u>% of Forest Land</u>
ME:	Washington	59.0%
ME:	Western Maine	34.0%
NH:	Northern Unit	21.4%
VT:	Northern Unit	13.8%
NY:	Eastern Adirondack	27.7%

Figure 1. Industry ownership as % of total commercial forest land.

Many large industrial owners are selectively screening their lands to identify potential "highest and best use" tracts for disposal. Some of these may be sold, others may be traded for other timberland or conveyed in easement or other form to public agencies. It appears likely though, that on net the total landbase of industrial owners will change little. Many are not highly fiber self-sufficient and they are considering or implementing costly mill expansions.

HYPOTHESIS 3: Regionally, large "spaghetti lots" do not dominate subdivision. Only in Maine did we find large lots in our cases. In Washington County, 60% of lots were 40 acres or larger. The average lot size figures for the other study areas were: Franklin County, 3 acres; Coos County, 8 acres; Orleans County, 17.6 acres; and Essex County, 8.7 acres. "Spaghetti lots" are long, odd-shaped parcels designed to include a maximum of backland together with the minimum required amount of shoreline. These are often wasteful of both land and natural amenities. But they did not appear frequently in our sample.

HYPOTHESIS 4: Few subdivisions are large. In many cases we found this not to be true. The average subdivision sizes were: Washington County, 620 acres; Coos County, 107 acres; Orleans County, 130 acres; Essex County, 64 acres; Franklin County, 41 acres.

HYPOTHESIS 5: Subdivision are affecting small areas. In three of the five study areas, we found the total areas subdivided to be small relative to the area of the towns (Table 6-11). Subdividers reported that the best prospects for subdivision there have already been done. But, in Washington County and Orleans County, the acreages are strikingly large, though much is nonforest in Orleans County. Subsequent land booms will likely affect similar areas; so that over 30-40 years a multiple of the acreage currently subdivided could be affected, barring other constraints and new policy initiatives.

In Essex County, many towns are running out of readily developable land. The State of New York continues to acquire land and is an important force in the market. The Adirondack Park Agency (APA) controls private land and keeps large subdivisions under control. The APA regulations are said to restrict the amount of land available for local housing lots. Away from the developed towns, the most desirable land is along lakes and rivers, most of which are under APA jurisdiction. At this point, "secluded" lakefront subdivisions are relatively uncommon in Essex County and are likely to remain so.

In Carrabassett, the effects of the Sugarloaf Mountain resort have been limited to an area very close to the mountain. In Kingfield and Eustis, less than 10 and 15 miles respectively from the Sugarloaf ski resort, demand for subdivided lots is largely local and therefore limited by the small population in those towns. We have heard it said in other work that skiers prefer to drive less than 30 minutes from a leisure unit to the slopes.

In assessing the impact of past subdividing activity, the question arises as to the correct basis for comparison. When subdivided acres are compared to all forestland, the percentages are small. When compared to the nonindustrial private land, however, these ratios are far higher in a number of areas. Comparisons to nonindustrial private acreage certainly depict a situation that is a more realistic basis for concern for the future.

Table 6. Subdivision Activity, 1980-1989.

	Franklin County	Washington County	Coos County	Orleans County	Essex County
Number of Subdivisions Studied	24	28	129	43	18
Number of Acres	1,000	17,355	13,788	5,609	1,148
Number of Lots	326	532	1,740	318	126
Average Lot Size	10	40 ¹	8	18	9
Percent Sold	57	Most	60	75	56
Peak Year	1988	1986	1987	1987	1989
Average from Commercial Forestland	60%	n/a	n/a	42%	56%
Subdivided as % of Total Town Land (Case Towns)	0.9%	6.6%	1.9%	10.5%	0.6%

¹ 60 percent of lots are 40+ acres

Table 7. Washington County

	<u>Beddington</u>	<u>Danforth</u>	<u>Northfield</u>	<u>Entire Area</u>
Total Acres in Town	19,400	31,806	31,118	82,324
Industrial Forest	15,546	18,000	17,857	51,403
Ownership				
Public/Conservation	318	32	2	352
Reserved Acreage	15,864	18,032	17,859	52,755
Total				
Non-Industrial	3,536	13,774	13,258	30,568
Private Acreage				
Acres Subdivided	3,303	211	1,924	5,438
1980's				
Acres Subdivided as	17.0%	0.6%	6.2%	6.6%
% of Town Total				
Acres Subdivided as	93.4%	1.5%	14.5%	17.8%
% of Non-Industrial				
Private				

Table 8. Franklin County

	<u>Kingfield</u>	<u>Carrabassett Valley</u>	<u>Eustis</u>	<u>Entire Area</u>
Total Acres in Town	24,525	49,430	31,360	105,315
Industrial Forest	11,400	35,045	16,551	62,996
Ownership				
Public/Conservation	75	3,405	980	4,460
Reserved Acreage				
Total	11,475	38,450	17,531	67,456
Non-Industrial				
Private Acreage	13,050	10,980	13,829	37,859
Acres Subdivided				
1980's	404	403	172	980
Acres Subdivided as				
% of Town Total	1.6%	0.8%	0.5%	0.9%
Acres Subdivided as				
% of Non-Industrial				
Private	3.1%	3.7%	1.2%	2.6%

Table 9. Coos County

	<u>Whitefield</u>	<u>Milan</u>	<u>Pittsburg</u>	<u>Entire Area</u>
Total Acres in Town	21,760	41,920	184,832	248,512
Industrial Forest	1,542	8,772	153,200	163,514
Ownership				
Public/Conservation	1,833	967	3,896	6,696
Reserved Acreage	3,375	9,739	157,096	170,210
Total				
Non-Industrial	18,385	32,181	27,736	78,302
Private Acreage				
Acres Subdivided	2,099	194	2,595	4,888
1980's				
Acres Subdivided as	9.7%	0.4%	1.4%	1.9%
% of Town Total				
Acres Subdivided as	11.4%	0.6%	9.4%	6.2%
% of Non-Industrial				
Private				

Table 10. Orleans County

	<u>Albany</u>	<u>Derby</u>	<u>Barton</u>	<u>Entire Area</u>
Total Acres in Town	24,960	31,616	26,880	83,456
Industrial Forest Ownership	0	0	924	924
Public/Conservation Reserved Acreage	50	349	989	1,388
Total	50	349	1,913	2,312
Non-Industrial Private Acreage	24,910	31,267	24,967	81,144
Acres Subdivided 1980's	1,680	5,609	1,455	8,744
Acres Subdivided as % of Town Total	6.7%	17.9%	5.4%	10.5%
Acres Subdivided as % of Non-Industrial Private	6.7%	17.9%	5.8%	10.8%

Table 11. Essex County

	<u>Elizabethtown</u>	<u>Jay</u>	<u>Minerva</u>	<u>Entire Area</u>
Total Acres in Town	52,480	42,880	101,120	196,480
Industrial Forest Ownership	13,330	1,593	10,999	25,922
Public/Conservation Reserved Acreage	18,795	8,195	69,995	96,985
Total	32,125	9,788	80,994	122,907
Non-Industrial Private Acreage	20,355	33,092	20,126	73,573
Acres Subdivided 1980's	202	886	60	1,148
Acres Subdivided as % of Town Total	0.4%	2.1%	0.1%	0.6%
Acres Subdivided as % of Non-Industrial Private	1.0%	2.7%	0.3%	1.6%

HYPOTHESIS 6: Subdividing does not mean prompt development. Our case studies show that wildland subdividing leads to subsequent construction of dwellings very slowly. In Franklin County, only 22% of the 326 lots created in the study period had been built on as of June 1989. Figures for other counties are: Coos County, 32%; Orleans County, 20%; Essex County, 24%; and in Washington County there was little buildout.

HYPOTHESIS 7: Scenic areas and lake fronts sell first, but backland is also active. In our case studies, we found that lake frontage is clearly a premium product and is being developed where allowed under regulation. But at the same time, general backland is also being subdivided, particularly where water access is provided. In the Adirondack Park, strict regulations restrict the development of most lake and river fronts. In New York, Vermont and New Hampshire, much water frontage has long been developed, so

that the more pristine lakes and rivers of Washington County are a special attraction to out-of-state purchasers. The county contains a total of 196,345 acres of fresh water, including 25 lakes each greater than 1,000 acres. Of the 28 subdivisions studied there, only 4 did not have land with shore frontage. Lots with shore frontage generally sell immediately. In the Carrabassett Valley, road frontage has been of primary importance to recent development. Because of large owner reluctance to sell, few remote areas have been subdivided.

From our other work, we know that there are many large lot "clearcut" subdivisions of backland in Maine, but we found few of these elsewhere. In sum, while pressure is heavy on water frontage, a great deal of unimpressive upland and pastureland is being subdivided as well.

HYPOTHESIS 8: Recreational use and speculation are the primary motives for buyers. Personal leisure use and speculation are certainly common buyer motives. The population trends and characteristics of recent subdivisions in Washington County, Coos County, Essex County and parts of Franklin County and Orleans County suggest that subdivision activity has been largely a response to demand for seasonal, recreational properties rather than resident housing. This is substantiated by our interviews. The majority of purchasers of subdivision lots in these areas are out-of-staters, so that the economies of the Boston and New York City areas, as well as other urban areas in southern New England, the Mid-Atlantic states, play an extremely important role in the land market of northern New England.

In the town of Carrabassett Valley in Franklin County, the demand for lots is directly associated with Sugarloaf ski resort. The reorganization of Sugarloaf Mountain Corporation in 1985 brought about unprecedented subdivision activity in that year.

In Essex County, real estate professionals commented that the preponderance of purchasers were nonlocal and that many were becoming residents. In Orleans County, real estate professionals stated that local property activity is closely tied to the economy of the entire New England region. As much as half of the demand for subdivided lots may be by nonresidents.

Demand for lots in parts of the study area, though, is strongly affected by local housing demand. In parts of Orleans and Franklin Counties, subdivided lots are being sold to local residents. In Orleans County, an abundant work force, good access to the interstate highway system, and relatively low real estate prices have attracted some business into the area, so that local demand for housing has been on the rise. Much of this real estate activity is occurring in the Newport/Derby area, the regional commercial center.

In the two Franklin County towns of Kingfield and Eustis, subdivision activity has been largely for year-round residents. Many projects were created as families settled estates or broke up old farms.

In Essex County, there is a strong local residential lot demand partly spilling over from growing nearby resort areas and an affordable housing shortage in those towns.

Though representing a time before the land boom's peak, data from the USFS state landowner surveys are useful. In those surveys, some 10% of the acres were owned by individuals with a primary motive of investment. Interestingly, recreation as a motive was far less important, except in New York. But this information applies to all owners, not just to new lot buyers.

E. UNANSWERED QUESTIONS AND SOME PRESUMPTIONS

The case study data enable us to gain a richer and more realistic view of trends in the land market. But they leave a great many questions poorly understood.

Buyer Motives Poorly Understood In embarking upon this work, we expected to discover abundant market analysis that would elucidate buyer characteristics and motivations. We hoped that such information would help us both in understanding what kinds of property buyers are seeking and in estimating likely future absorption rates. Because we have not been able to locate any such information, we are unable to report well grounded and current information on this topic.

Effectiveness of Public Policy Uncertain

Regulatory policies and the pervasive absence of local controls have clearly affected the location and design of subdivisions in the areas studied. The diversity in lot sizes across the states is one illustration of this.

But the effectiveness of existing and potential regulatory policies remains uncertain. We cannot readily judge how the potential supply of subdividable land will be affected by the policies now being put in place by states and municipalities. Many subdividers asserted that "regulation is putting us out of business" but we have no way of evaluating such comments. We can expect, however, that it will take many years to devise truly effective regulatory regimes that minimize intrusive controls and perverse side effects.

Direct Economic Effects Not Known We have encountered no analysis of how wildland lot subdividing affects local economies. It is a reasonable presumption that noticeable positive economic effects, after the construction period, should not be expected.

Effects on Timber Production are Uncertain, But Probably Negative There is some difficulty in predicting the overall effects of subdividing on regional wood supplies. Overall, in view of the modest acreages directly subdivided, effects would not be great. But a series of similar land booms over future decades would expand the area affected.

The wood production potential of subdivided lots probably depends on the size of lot created. On 40 to 200 acre parcels, some production is a one time supply--when lots are cut before sale. In some areas, we have been told that timber management has improved after the breakup of very large "kingdom" holdings, but these are not typical lots. One land company actively seeks to promote management by its customers. On the smaller lots that are being created, however, owner fuelwood cutting is likely but the small size of parcels will hinder future commercial operations.

As and if buildout proceeds on these subdivisions, it is likely that owners will seek to restrain logging, hauling, and other management

activities on adjacent private and public lands. This effect is well-known in the case of farmland conversion and is termed "shadow conversion". It expresses the idea that when a single acre of rural land is converted to a residential use, it may compromise previous rural uses on two to three additional acres. In forestry, the ratio could be still higher.

Surveys of owners to determine their attitudes and plans will help to resolve these uncertainties. But overall we think that effects on future wood supply are less important than effects on aesthetics, wildlife habitat, recreational uses, and wildness. But if future land booms exceed our expectations, if owner attitudes are unfavorable to active management, or if major shadow conversion effects emerge, this outlook may need to be revised.

We do expect that on balance industrial ownership will change little over the next few decades, as lands sold for development are replaced by other acquisitions.

Effects on Wider Landscape Values Have Not Been Documented, But Are Likely Negative We have seen subdivisions covering the range of possibilities from mindless, exploitive layouts to those embodying a considerable measure of respect for at least the most obvious aesthetic and natural values. Our cases show that a great deal of the subdividing is on lands that are not especially environmentally sensitive.

Still, it is not easy to improve the wilderness character of a wild lake by subdividing its shores. Recreational use and wildlife habitat are not likely to benefit from scattered unplanned subdividing. Most importantly, the elusive quality of "wildness"--which is most at stake in the northern--is being harmed irreversibly by this form of land use.

Whatever the actual effects turn out to be, it is clear that the current land rush, in an atmosphere of complacent and even perverse public policy, has generated social costs far larger than they might have been. And it has probably generated little if any long-term economic benefit for the areas affected beyond the immediate wealth transfer and construction period employment effects.