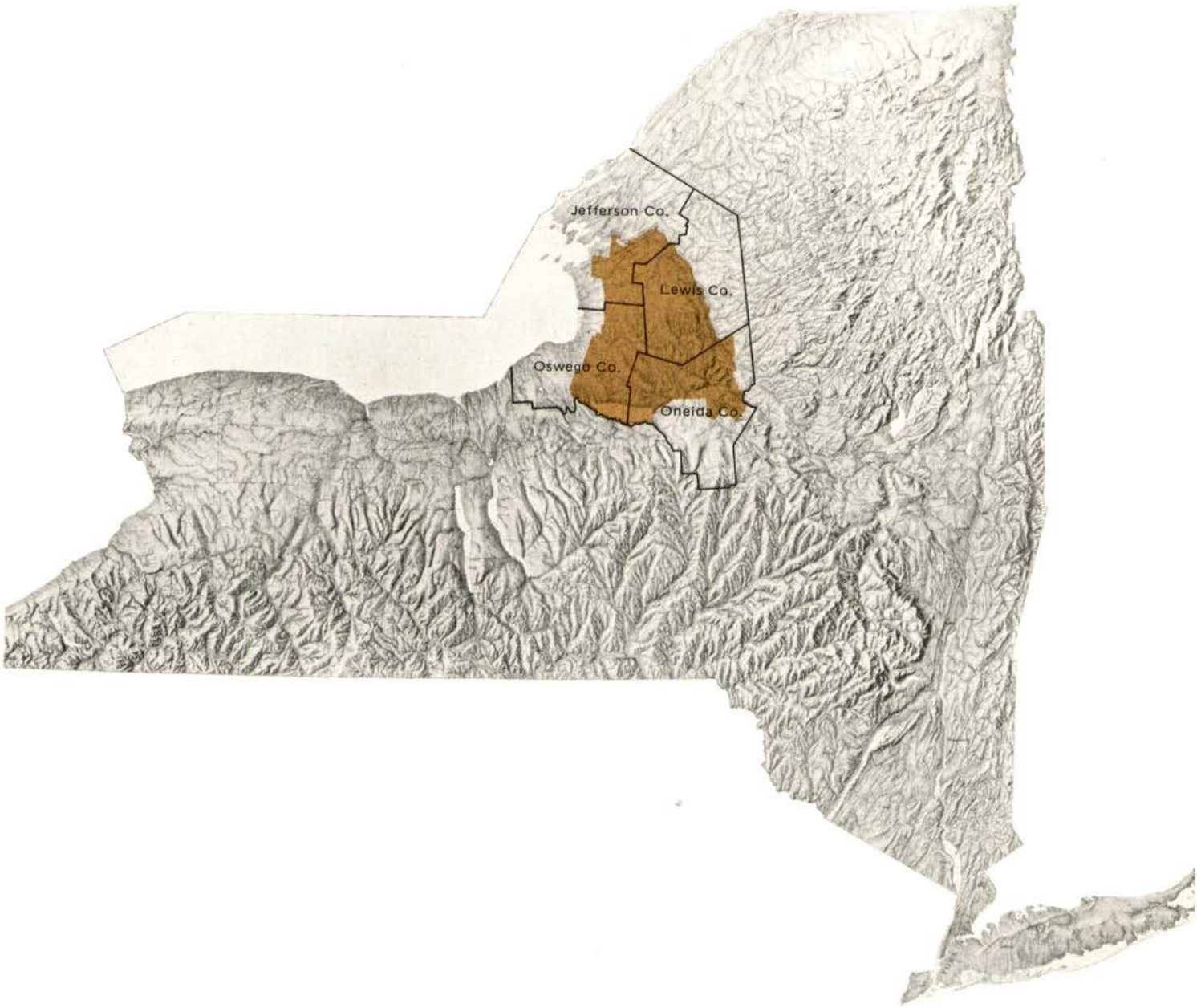




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# PREPARING FOR THE FUTURE

REPORT OF THE TEMPORARY STATE COMMISSION ON TUG HILL





# PREPARING FOR THE FUTURE

THE REPORT OF THE TEMPORARY STATE COMMISSION ON TUG HILL  
PRESENTED TO THE GOVERNOR AND LEGISLATURE  
OF THE STATE OF NEW YORK  
FEBRUARY, 1976

## DEDICATION

*The members of this Commission hereby dedicate this report to the memory of Edward F. Crawford. While serving as assemblyman from the 117th District, Judge Crawford introduced the legislation which formed the Commission; he then served as its first chairman.*

## TEMPORARY STATE COMMISSION ON TUG HILL

### MEMBERS

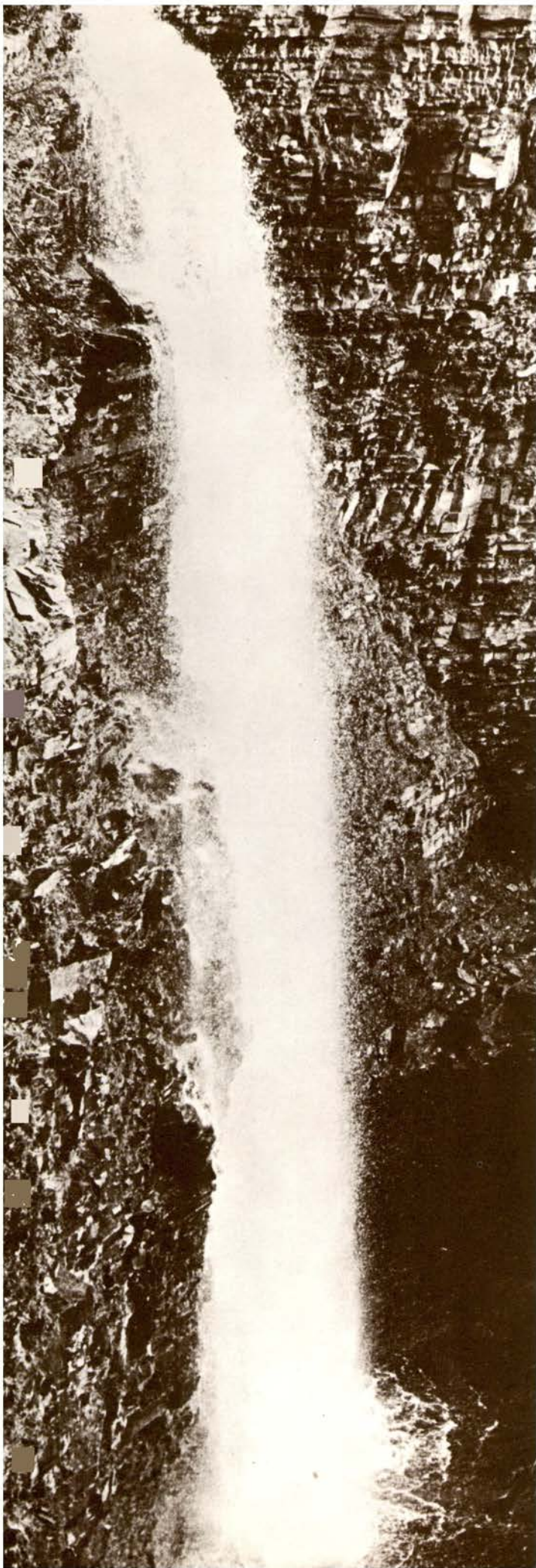
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Constantia, Oswego County  
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Castorland, Lewis County  
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Ranking Minority Member, Assembly Committee on Ways and Means  
Jeremiah B. Bloom  
Ranking Minority Member, Senate Committee on Finance

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## CONTENTS

|                                                                                                                     |    |
|---------------------------------------------------------------------------------------------------------------------|----|
| CHARGE TO THE COMMISSION                                                                                            | 5  |
| THE COMMISSION'S RESPONSE                                                                                           | 5  |
| SUMMARY OF<br>MAJOR RECOMMENDATIONS                                                                                 | 6  |
| TUG HILL — PROFILE OF A REGION                                                                                      | 9  |
| TUG HILL'S DILEMMA                                                                                                  | 11 |
| GOALS FOR THE FUTURE                                                                                                | 13 |
| RECOMMENDATIONS<br>OF THE COMMISSION                                                                                | 14 |
| A. Keep Tug Hill the Way It Is                                                                                      | 14 |
| B. Maintain a Healthy Economy                                                                                       | 20 |
| C. Maintain the Present High Quality<br>of Tug Hill Air                                                             | 23 |
| D. Protect Tug Hill's Watershed<br>and Unique Areas for<br>Enjoyment and Utilization                                | 25 |
| E. Maintain Agriculture as a Way of Life<br>and as a Mainstay of Tug Hill Economy                                   | 36 |
| F. Maintain Tug Hill Forests<br>for Timber, Wildlife and Recreation                                                 | 38 |
| G. Maintain the Recreational Values<br>of Tug Hill While Providing Economic<br>Benefits for Those Who Live Here Now | 43 |
| H. Preserve "Home Rule" and Curb the<br>Growing Cost of Government (Taxes)                                          | 48 |
| APPENDICES:                                                                                                         |    |
| A. Enabling Legislation                                                                                             | 54 |
| B. Proposed Standards and Regulations<br>for "Unique Stream Areas"                                                  | 55 |
| REFERENCES                                                                                                          | 57 |



## CHARGE TO THE COMMISSION

The Temporary State Commission on Tug Hill was formed by the New York State Legislature at the request of local citizens. They were concerned when an out-of-state developer obtained an option to buy a very large plot of Tug Hill property. It was not that Tug Hill citizens viewed development as automatically bad; rather, they were asking, "What is the best use of the land and its resources

for the people who live here and for generations to come?"

The enabling legislation (Appendix A) defined a 39 town region, covering 1,285,000 acres, and charged the Commission to study all factors that affect quality of life and then to make recommendations on the future.

## THE COMMISSION'S RESPONSE

Nine Commission members, appointed in accordance with the legislation, met for the first time on April 3, 1973. The first staff member, the Executive Director, began work October 1, 1973.

From its beginning, the Commission has sought extensive public involvement. While compiling an inventory of information on the resources of Tug Hill, the Commission held a series of eight public forums. At these sessions more than 1500 people described the area's problems and what they would prefer the future to be like.<sup>1</sup>

Aided by technical studies, the Commission members developed recommendations designed to reach goals set in the balanced interest of the people of the region and the citizens of the state as a whole.

A *Preliminary Findings* report<sup>2</sup> was issued, and a second round of public forums held in June of 1975 to hear comments and questions on the proposed recommendations.<sup>3</sup>

This report presents the results of final deliberations by Commission members. In the 33

months after they were appointed, the Commissioners met 46 times. All nine members are residents of counties in the region and do not receive stipends or salaries.

The Commission has kept its staff small (seven, plus three temporary employees funded by the federal CETA II program) and has used the state university system and others for technical support. By using governmental and educational institutions that have a strong interest in the region and in public service, the Commission feels that it has obtained high performance at the lowest possible cost.

The greatest single effort during the two and one half years of Temporary Commission life has been spent on developing an approach to land use planning and control suitable for Tug Hill. This has not been just an exercise in theory. Over half of the Commission's staff time has been spent during its second year in providing technical and program support to a pilot effort by nine towns working together to prepare land use plans.





## SUMMARY OF MAJOR RECOMMENDATIONS

- Prepare a Land Use Capability and Development Plan, including implementing programs and controls, for the Tug Hill Region. The proposed approach builds the regional plan from the town level up.

The region would be divided into subregions containing groups of towns with common interests. Town plans would be coordinated to produce sub-regional plans. These, in turn, would be combined to form the regional plan. A continuing commission would provide technical assistance and coordination so that the elements would fit together. During the planning process, matters of local, subregional and regional concern would be defined. The result would be town plans and a regional plan produced simultaneously through local government action.

- Pursue economic development efforts to maintain the health of agriculture and forest related industry. Encourage moderate growth of commercial and industrial business consistent with the nature and character of the region, and in ways that strengthen the villages which serve surrounding communities.
- Determine the long-term effects of acid precipitation on Tug Hill's plant and animal life. Determine the sources of acidity so that action can be taken to curb damaging effects.
- Protect Tug Hill's streams, wetlands and unique gorge areas through a combination of joint town

action and state law. The designation of selected stream sections as "unique stream areas" is recommended for adoption by local governments working in concert.

- Stabilize the use of land for agriculture through local planning, property taxation reform and the agricultural district law.
- Maintain Tug Hill's forests for timber, fish and wildlife, and recreational use through sound land use planning and control and through innovative taxation and forest management programs.
- Develop trails and facilities for hiking, cross-country skiing, snowmobiling, hunting and fishing, and other low-intensity recreation. Do this in ways that will not degrade the environment and the nature of Tug Hill communities.

Through planning, ordinances and law enforcement, reduce such problems as noise, litter and trespassing that recreation can impose on farmers and other landowners.

- Reform property taxation policies and procedures to make them more consistent with land use goals and to eliminate inconsistencies in the taxation of state lands.
- Provide technical and financial assistance to enable local government to carry out its mission in today's increasingly complex society. Improve interaction between governing bodies at all levels.

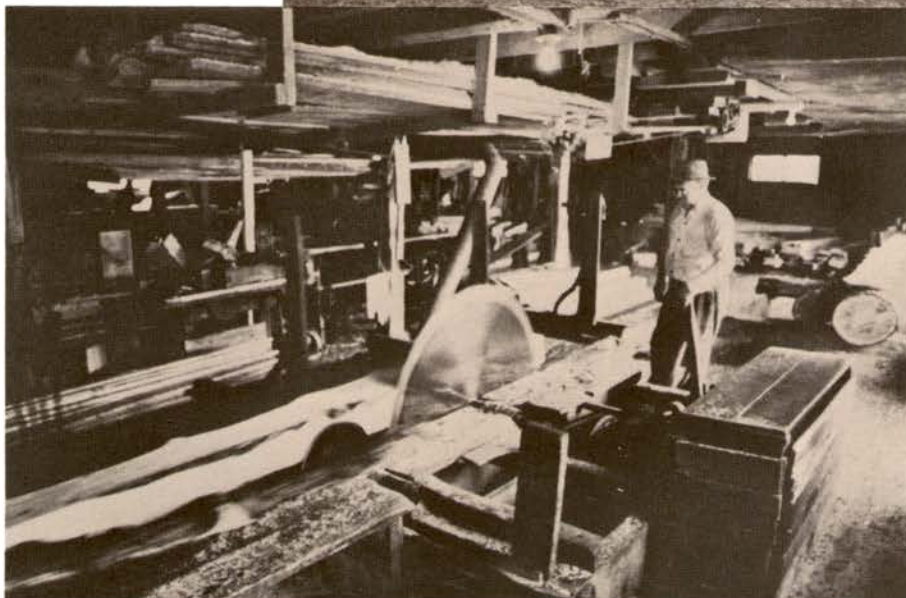
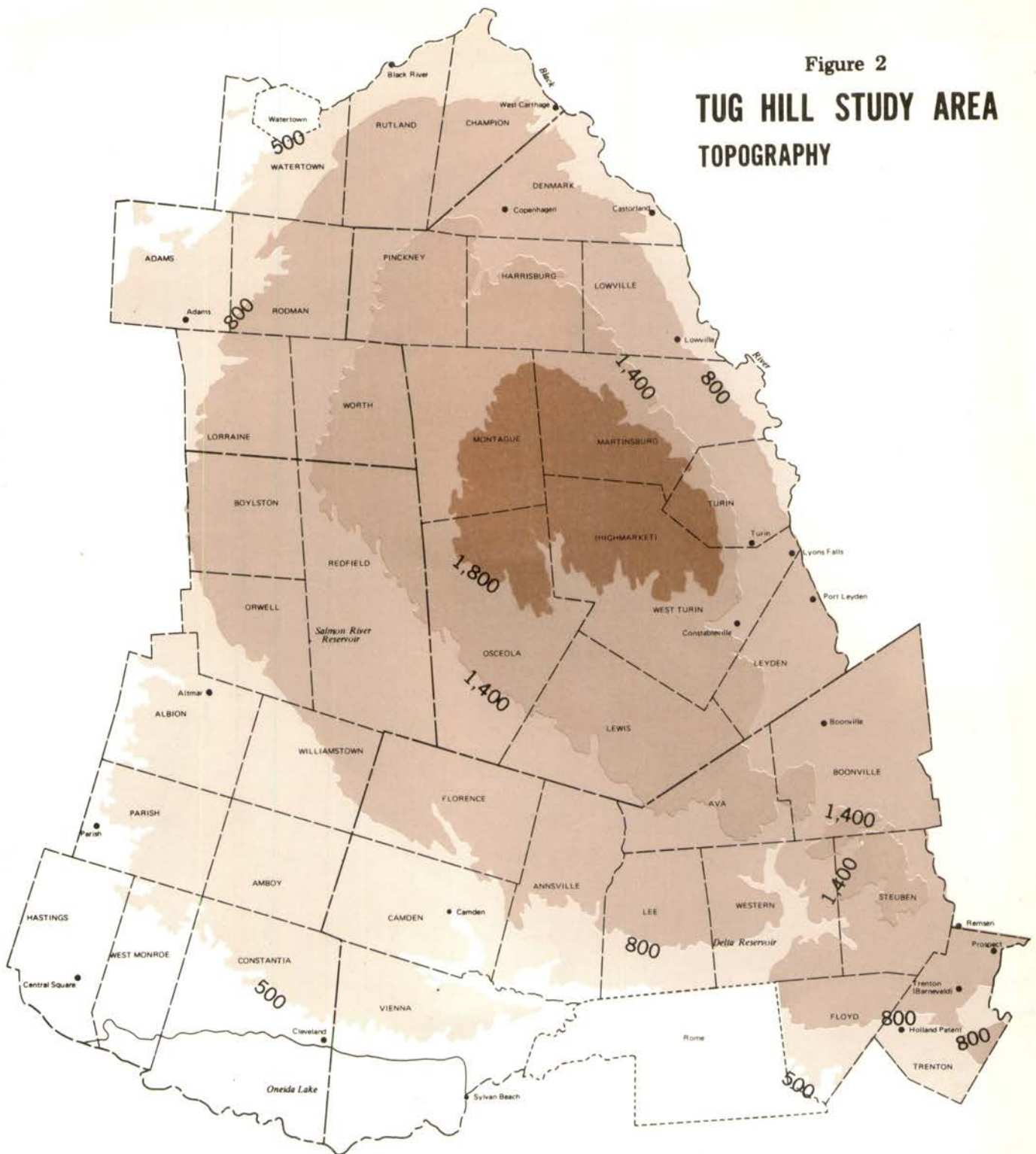


Figure 2  
TUG HILL STUDY AREA  
TOPOGRAPHY



*Soil associations typical of the Tug Hill Core — Worth, Empeyville, Westbury, Dannemora, Tug Hill — and the agriculture and forest land use patterns associated with them, extend to approximately the 500 foot contour line on the south and west.*

## TUG HILL-PROFILE OF A REGION

*"... To begin with, Tug Hill is not actually a hill at all, at least not a hill that one may climb, and resting on the crest, say to oneself, 'I have reached the top' ... Instead, Tug Hill Country embraces not only the plateau itself, but all the vast regions that are watered by and drained by the tumultuous streams that come down from its flinty slopes and through its rocky gorges ..."*

(From *Tug Hill Country* by Harold E. Samson, North Country Books, 1971)

**Its Geography.** Near the center of New York State, in the Watertown-Syracuse-Rome triangle, is a vast region half again the size of Long Island. Much of it is wilderness, devoid of roads and communities. Its name is Tug Hill.

Tug Hill is not really a hill. Nor, strictly speaking, is it a plateau, although it is often referred to as such. Instead, Tug Hill forms a wedge that rises gradually from an elevation of 250 feet at Lake Ontario to about 1,900 feet at the eastern escarpment 40 miles inland. Its highest spot is Gomer Hill in Turin, 2,115 feet above sea level. From the escarpment the contours drop sharply in "benches" to the Black River, while the slopes to the north and south are more gradual.

The Tug Hill area, as prescribed by the Legislature for the Commission's study, is approximately 40 miles wide by 50 miles long and contains some 1,285,000 acres. The region includes 39 towns in parts of Jefferson, Lewis, Oneida and Oswego Counties, and a population of about 81,500. Forests cover much of the area, from the wilderness Tug Hill "core" south to Oneida Lake.

Tug Hill reputedly has a greater annual snowfall than any other place east of the Rockies.<sup>4</sup> High precipitation, together with the spring runoff from the snowpack, makes Tug Hill an important source of clean water for central New York and for the Mohawk-Hudson river system.

In Tug Hill's wilderness forest, the fish and wildlife resource is substantial. So is the outdoor recreational potential — for hunting, fishing, hiking, cross-country skiing, snowshoeing and snowmobiling. However, while recreational use brings benefits to those in associated businesses, it also carries consequent problems of cluttered camps, trespassing, litter and noise.

**Its People.** Most of the region's population, much of its farming, and virtually all of its major social facilities are concentrated in the towns which form the outer rim of the area. Those who live in the more remote core are dependent for goods and services on the villages around the rim. The rim has two major segments. The northeastern part, heavily agricultural and lightly populated, exhibits low potential for population growth. The southern portion is more heavily populated and subject to strong growth pressures because of its proximity to Utica, Rome and Syracuse, and because major highway development promotes traffic flow to and through the area. The core has other problems. Long distances and difficult access, particularly in winter, increase the costs of bussing, patrolling, medical care and sanitation services. Only 12% of the region is publicly owned. Relatively few private owners control another 35-40% of the region.<sup>5</sup>

Apart from the central core, residents of the 39 towns are not accustomed to identifying themselves as people of a Tug Hill Region. Instead, they tend to identify with four or five groupings of towns with somewhat different interests, but each related to the region as a whole.

"The region, lying like a net thrown around the flanks of the plateau, is held together by its rural nature and its history. Still the forces of people's lives pull them outward, away from the center, toward Syracuse, Rome, Watertown, and smaller cities where they must go to work. At the core of the region is Tug Hill itself. When people do turn inward, toward the high and empty interior, they think of recreation. But they also have images of the frontier, of folklore, of wilderness, of their historic past. For them, Tug Hill is a geography of the mind as much as the map."<sup>6</sup>

There are some 100 settlements of 10 or more houses in the Tug Hill region, from crossroads hamlets to substantial villages like Adams and Camden. For the most part, people are deeply attached to their communities; they have no desire to move. "We drive a long way to our jobs. We wouldn't have stayed if we didn't like it here."<sup>7</sup>

The nature of the settlement of Tug Hill and its surroundings produced a strong heritage from which the tenacity, independence, warmth, humor, and fortitude of the region's residents take root.

Indian lands were confiscated after the American Revolution since most tribes of the Confederation of the Five Nations had sided with the British. The lands north of the Mohawk valley were virtually uninhabited and in danger of being retaken by the British. The young nation was interested in settling the land with people who would fight to protect it. Vast tracts were purchased by wealthy New Yorkers like William Constable and George Scriba for as low as eight cents per acre. That land was in turn sold to settlers.

Pioneers arrived in Tug Hill proper about 20 years after the end of the Revolution. Land was cleared for a community near Highmarket, and lumbering and small scale farming were started. Soon after the turn of the 19th century, towns such as Lowville and Turin were well established.<sup>8</sup>

The region did not see a real influx of settlers, however, until the completion of the Erie Canal in 1840 which brought Irish and then German immigrants. In 1851 the Black River Canal, a monumental engineering project with 109 locks rising 1,082 feet from Rome to Lyons Falls, was completed.<sup>9</sup> The canals, and later the railroads, carried the Tug Hill spruce, hemlock and pine that was used to build, among other things, the piers and houses of New York City.

By 1870 Tug Hill had become the center of New York State's logging industry, and the population reached a peak of more than 80,000. It was not to rise as high again until the 1970 census.<sup>10</sup> The land was found suitable for dairying, and cheese became a leading export. In the early 1900's cheese factories dotted the countryside.

The first Irish settlers, however, soon found the plateau lands unsuitable for crops because of the harsh climate and poor soils. They started selling their land to Polish settlers in the 1910's and left the area or moved to surrounding villages where paper mills provided the first significant industrial employment. By 1930 most of the Polish

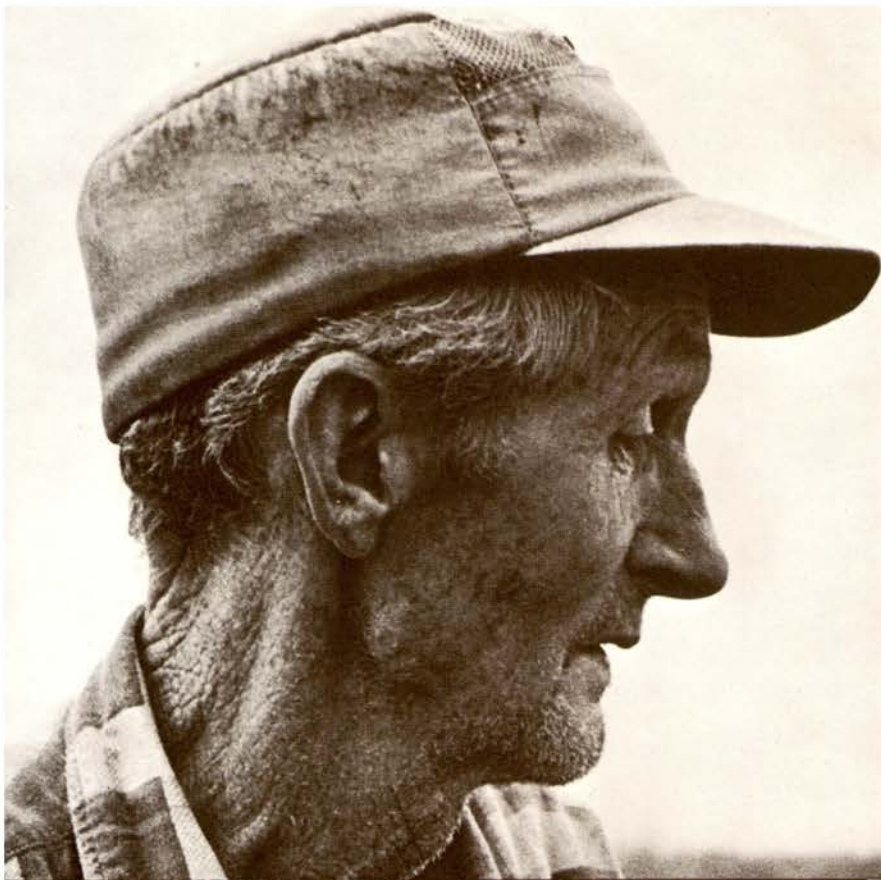
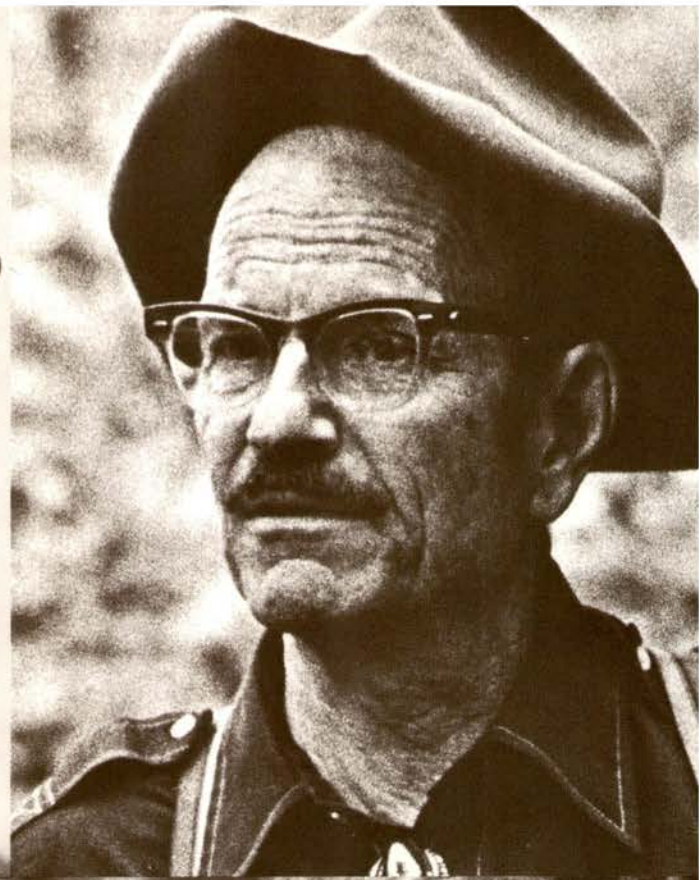
families, in turn, abandoned the plateau for richer lands in the valleys around the rim.

As the forests became depleted and the best farm land taken, population in the center of the region continued to decline. Larger "rim" communities such as Lowville, West Carthage, Adams, Camden and Boonville expanded as people moved off the "hill."

Today the crossroads of Tug Hill, though no longer bustling centers, evince a rural way of life which residents have grown to love. As land sales indicate, that way of life is also becoming increasingly popular among urbanites seeking retreat from the pressures of the cities. Second home development is growing in Tug Hill, and already more than half the land in five central core towns is owned by non-residents.<sup>11</sup>

The region is characterized by a remarkable stability of many of its communities and their basic organizations (fire departments, churches, granges, lodges). The customs of the region have emerged from this stability. But Tug Hill does not live in a stable world. Improved highways and increasing affluence are bringing new homes and trailers — and new faces — into the once declining settlements of the region. The rate at which these changes are occurring already accounts for important differences among the towns of Tug Hill.

Most Tug Hill residents realize that change is coming, some of it quite rapidly, and they recognize the potential threats to their surroundings. The key to adapting to change rests with local governments and town boards. Supervisors and town board members appear to be widely respected and trusted — but with little training and less time, they must deal with complex regulations, concerned citizens and involved record-keeping. They work virtually as volunteers, performing tasks that in wealthier communities would be done by professional managers.



## TUG HILL'S DILEMMA

One sentiment was voiced repeatedly at the public forums: "Keep Tug Hill the way it is." This expressed wish has been adopted as the Commission's theme — a goal encompassing all other goals. Keeping Tug Hill "the way it is" includes preserving the lifestyle, the beauty, the access to fishing and hunting, the opportunity to make a living farming, and the wish to be independent and decide one's own future.

The wishes also expressed by the people for

development of certain services and economic improvements might appear to contradict their demand that the region be maintained as it now is. A closer look, however, suggests that some change can be accommodated without compromising the wishes of Tug Hill residents. While some kinds of development and improvements are needed to make Tug Hill an even better place in which to live, the citizenry generally wants this development in a manner that will not change the nature of life and of the surroundings.

However, unless people are prepared to act, their desires for the future are sure to be frustrated, for the social and physical environment of Tug Hill is coming under increasing pressure from without.

Acid precipitation appears to be threatening forest resources, agricultural land and the region's fishery. The Tug Hill economy is fragile and would be seriously damaged by major disruptions. Cherished "home rule" is under assault from broader jurisdictions. However, the most significant factor that portends an unwanted future for Tug Hill residents is growing urban pressure on the land itself.

The Commission found the following:

- A major signal of growing interest in Tug Hill's wilderness area was Horizon Corporation's option to buy Georgia-Pacific's 55,000 acres in 1972.<sup>12</sup> Though the option was dropped, much attention focused on Tug Hill, and the event was a main factor in the formation of the Study Commission.
- Growing activity in dividing Tug Hill land into smaller parcels signals increased pressure from land developers. The number of parcels smaller than two acres for region towns in Lewis, Oneida and Oswego Counties (Jefferson County figures not available) increased from 5,685 in 1964 to 10,584 in 1974.<sup>13</sup>
- Between 1964 and 1974 the percentage of acres of developed land increased in 26 towns and decreased in only five towns in the region.

In the central core, the cause was second home development.<sup>14</sup> For example, Redfield's population stayed the same over the last 10 years, but the number of "camps" increased from 148 to 260 (76%) just between 1972 and 1974. The increase occurred on outlying roads where vacation homes are located. At the same time, the number of occupied residences in the hamlet of Redfield decreased.<sup>15</sup>

- Average price of inactive land for parcels of 50 or more acres rose markedly over the last ten years. In the core area, the rise was from 5 to 120 dollars per acre. In the southwest rim the rise was from 20 to 75 dollars per acre.<sup>16</sup>

Left unchecked, the land use pressures will lead to speculation, subdivision of parcels and development for recreational and suburban use.

Based on its studies, the Commission predicts that over the next 20 years, in the absence of corrective measures, most Tug Hill core lands will be owned by non-residents. Vacation homes will multiply and the demand for home sites will raise the price of land, at least accessible farm and forest land. This, in turn, will change equalization rates. Property taxes will rise and many Tug Hill citizens will no longer be able to afford to stay in the region. With an increase in the price of forest lands, more and more forest parcels will be sold and access roads built for continued second home development. Forests and farms will wither, taking with them wood and food processing industries. The watershed will then be threatened, particularly if only the present minimal regulations are in force.





## GOALS FOR THE FUTURE

The long-range goals listed below were developed from views of the citizenry, analysis of technical information and consideration of the wider interests of the state. The Commission believes that the goals of the people, as expressed by the several thousand who became involved in the work of the Commission, are generally consistent with the state's best interest as well.

### Long Range Goals

1. Through moderate economic growth, reduce local unemployment, discourage the young from emigrating, improve the tax base and make it possible for more out-commuters to work within the region.

2. Preserve Tug Hill's natural assets and direct growth in ways that will:

- maintain the economic health of the farming and local processing industries;
- develop and improve forests to encourage the long term health of wood-based industry, secure habitats for fish and wildlife, and provide for selected low intensity recreational use;
- preserve the high quality watershed, including wetlands, streams, ground waters, lakes and ponds;
- protect fragile and unique areas of exceptional

topography, scenery, ecological features and history, with particular attention to forests and streams in the wild core;

- provide for effective use of state lands, including appropriate access, facilities and services in areas valuable for recreation;
- avoid burdening local government with undue service costs which require higher taxes;
- meet state and federal requirements under law;
- control the expected continuing growth in second home development and commercial recreation in a way consistent with environmental goals;
- maintain the rural nature of southern rim towns which are feeling pressure of suburban growth;
- direct economic and residential development toward the villages and hamlets; prevent unplanned "strip" development which can weaken these service centers;
- generally preserve an environment pleasing to present residents, potential new residents and visitors.

3. Protect from degradation the basic natural resources: air, water, minerals and forests. Reduce and, where practical, eliminate present air and water pollution, litter and other problems which have degraded the environment.

## RECOMMENDATIONS OF THE COMMISSION

There are many ways to pursue the stated goals. The Commission believes that the methods and processes used may be even more important than the goals themselves. Indeed, there was little disagreement among the citizenry on what the future of Tug Hill should be like. There was considerably more debate at the public forums on how to reach that future. Clearly, on matters where there was choice between state or local implementation, the people said, "Let local government do the job."

This request has been recognized and evaluated, and the recommendations which follow propose

action at the local level wherever possible. Thus, the Commission is saying to the Governor and Legislature, "Local government can direct effectively the future of Tug Hill — if the necessary support is provided." Naturally, this stand in behalf of "home rule" carries with it the need for local government to exercise its responsibilities and powers and to draw upon technical and financial resources when they are made available.

The recommendations which follow have been arranged under eight subject areas. The eight titles represent a restatement of goals for the future.

---

### *A. Keep Tug Hill the Way It Is*

#### RECOMMENDATIONS

1. Prepare a Land Use Capability and Development Plan, including implementing programs and controls, for the Tug Hill region. Design the planning program to consider resources of regional and state interest, such as the watershed, forests, agricultural lands and unique gorges, and be consistent across town and county boundaries. At the same time, use a process that will make it possible to build the plans from the town level up rather than the state level down.

#### Action:

a. Program for management of state owned lands. The Department of Environmental Conservation (DEC) should be provided adequate means to produce land use and management plans for state owned lands under its jurisdiction. The completion of the first issue of this plan should coincide with the completion of the Land Use Capability and Development Plan for the region. DEC should work in conjunction with the successor commission and appropriate local planning bodies on matters of mutual interest. The state land plan should emphasize where possible multiple use and should consider at least the following: linear recreation, resource production, service areas (e.g., parking), wildlife habitats and unique natural areas.

b. Land use program for privately owned lands. The following procedure is recommended for carrying out the planning program for privately owned lands within the region:

- Towns and villages within the region which do not yet have planning boards would form them.
- The region would be divided into several sub-regions composed of towns and villages with similar interests, and joint planning boards would be formed in each sub-region.

The planning program would commence at the local level and be assembled at the sub-regional level. In that way, each sub-region would produce an integrated plan for its share of the total region. A Tug Hill Regional Commission, whose membership was representative of each of the sub-regions, would provide technical support using capabilities existing in county planning boards and other agencies when feasible.

Each sub-region plan would, by map, divide lands into areas, and, by accompanying text, describe the land uses and development permissible. Matters of local, sub-regional and regional concern would be defined during the planning process. Proposed or enacted programs, laws, ordinances and regulations to implement the plan would be included.

Plans and controls developed by planning boards and joint planning boards would be adopted by the towns and villages. (Towns with existing plans and ordinances would review and update these.) Sub-region plans would be reviewed by the appropriate county, and approved by the Commission for inclusion in the regional plan. Commission review would be for consistency with other sub-regions and attention to matters of sub-regional and regional concern.

- In the interim, before the plans and controls were in effect, the Commission would, on request, provide services to the towns to review proposed development projects. The Commission would report results to town or village planning boards, joint planning boards, county planning boards, and the Departments of Environmental Conservation and Health. Town or village boards could use the project review results to determine whether or not to postpone projects until the local planning process was completed and plans and ordinances adopted.
- Implementation of the regional plan and locally adopted sub-regional plans would be at the town, village and sub-regional level with review and approval by the Commission of projects which are of regional concern. Variances from ordinances and regulations would be handled by the appropriate body depending upon whether the matter involved was of local, sub-regional or regional concern.

c. **Tug Hill Regional Commission.** In order to carry out the proposed land use planning program, the Legislature should establish a Tug Hill Regional Commission, composed of local residents representing each sub-region within the region. The duties of that Commission would be as follows:

- Coordinate the program that will yield town plans and a regional Land Use Capability and Development Plan.
- Serve as a channel for funding that will help support town and village planning efforts.
- Provide technical assistance to towns and villages and other government and private bodies in implementing various recommendations of the Temporary Commission and its successor.
- Conduct studies and pilot programs which will show how the assets of Tug Hill and its surroundings can be best used, enhanced and/or protected.
- Serve as a review and approval body for projects of regional concern.

2. Towns affected by the emerging salmonid program (especially Albion and Orwell in the Tug Hill Commission area and Richland and Sandy Creek in the St. Lawrence-Eastern Ontario Commission area) begin cooperative planning now. Consider optimum sites for private commercial and service facilities to serve the influx of visitors, second home owners and recreation-oriented businesses.



*The Cooperative Tug Hill Planning Board — towns working together to prepare for the future.*

**Action:**

a. The Department of Environmental Conservation should review the environmental impact of the salmonid program on impacted rivers and, in coordination with affected towns, prepare a plan of action covering state responsibilities.

Among factors that should be considered are bank erosion under expected heavy use, trash disposal and sources of pollutants that might affect the fishery.

3. Strengthen state and local subdivision regulations and requirements to protect the health, safety and welfare of the citizenry.

**Action:**

a. The Commission would confer with appropriate state and local agencies to develop and propose legislation for land sale registration procedure that would bring all sales to the attention of the proper regulatory bodies concerned with health, safety and welfare.

b. The Commission recommends that the Public Health Law, Sections 1115 and 1116, be amended to change the definition of a subdivision from five or more lots to two or more lots. The amendment should also define the word, "subdivision," as it relates to the use of the subdivided land in order to clarify uncertainties pointed out by recent court decisions. The Commission urges that the State Department of Health be provided sufficient funds and staffing to enforce properly the subdivision law.

c. Local subdivision laws should be developed as part of the joint planning programs of towns and villages. The Commission would aid local governments by preparing a model ordinance adaptable for local use.

4. Accelerate Soil Conservation Service soils study programs in Jefferson, Lewis and Oneida counties in order to provide the foundation for sound land use plans and ordinances.

5. Develop, as part of the recommended planning process, an integrated sign law for the region. To accomplish both commercial and aesthetic benefits, place attractive signs designed to fit the character of Tug Hill at strategically located "information centers."

**Stewardship of Land and Resources.** The desire of Tug Hill residents to see a future much like the present can only be realized through positive action. At an early stage of the Commission's work it became evident that planning in a comprehensive manner would be necessary if the future of the region were to satisfy both the wishes of the local citizenry and the broader interests of the state.

Today there is little control over Tug Hill's active land market. Of the region's 39 towns, only nine have master plans and seven have zoning ordinances. Five of the 17 incorporated villages have master plans and five have zoning ordinances.<sup>17</sup>

An analysis of existing controls in the region and a review of zoning for rural areas elsewhere in the state and nation show clearly that planning and zoning at the town or village level have been generally inadequate in providing for the future of the land.

The reasons are complex, but some of the issues are:

- Town and village governments have neither the money nor the technical background and experience to do the planning job.
- The need for environmentally oriented planning for rural areas is only newly recognized, and processes for effective rural planning are still being developed.
- Town and village governments are too prone to indiscriminate granting of permits and variances due to local social and political pressures.
- Effects on neighboring towns and on region-wide resources are usually too complex for a town to consider on its own.

In recent times, bodies established around the country to consider the plight of important natural areas have reported similar findings.<sup>18</sup> Nonetheless, the Commission does not accede to the often-expressed conclusion, "Local government can't do the job, so the state must do it."

Instead this Commission has endeavored to develop an approach to planning that would overcome past weaknesses in local land use decision making and thereby enable local governments to exercise their powers effectively.<sup>19</sup>

The Commission's first recommendation, to create a Land Use Capability and Development Plan, describes a structure and process which both recognizes region-wide resources and state interests, and maximizes local responsibility and action.

Land use capability planning is based on an inventory of natural resources and a review of man's current impact on the land. The capability of the land to withstand various uses becomes a major factor in determining how to direct change and protect resources. Other factors related to the health, safety, prosperity and welfare of the inhabitants should be considered, such as the economy, recreational opportunities, historical assets, population trends, transportation, and local government facilities and services.

A cornerstone of the recommendation is joint town planning. The Commission sees this as a way to overcome the weaknesses of rural planning while avoiding imposition of a plan from without.

However, the towns which have large important natural areas to protect are also tax-poor and require technical assistance and funding.

The role of a continuing commission is to provide that technical support, financial aid and coordination which is crucial to the success of town and joint town planning. The Commission would provide the "glue" and region-wide perspective that make it possible to combine the plans of the several groups of towns into a regional plan. Later, after implementing ordinances had been adopted, the Commission would also serve as a review and approval body on land use decisions affecting more than a single group of towns.

Through the proposed process, both town plans and a region plan are produced simultaneously through local government action. With proper citizen involvement at the town and village level, the plans produced should be understandable and acceptable to the majority of the citizenry.

The proposed approach is not just an idea on paper. In June 1974, the Town of Redfield in Oswego County invited eight other towns to form a Cooperative Tug Hill Planning Board. Although the towns are divided by four county lines, they are united in their common jurisdiction over the Central Tug Hill forest and watershed.

The Commission was asked to advise on the board's formation and to provide technical support for a full-fledged land use capability analysis. An unusual mark, then, of this temporary Commission is the existence of a planning program prototype in nine of the 39 towns. This has given the Commission and the communities involved the opportunity to learn together how to build a joint rural planning process. County planning departments have advised and supported the Commission in these efforts.

The Commission does not presume to say that the methods proposed here are necessarily appropriate for other natural resource areas of the state. Different areas have different constraints. The Commission does believe that Tug Hill is an excellent place for New York State to invest in testing an approach of this type because:

- Local goals are consistent with preserving resources important to the state. For example, a survey of town board and planning board members for the nine towns of the Cooperative Tug Hill Planning Board showed that over 90% were in favor of providing special protection for areas such as streams, forests, gorges and waterfalls, and good farmland. About 75% were in favor of protecting wetlands — a rather new concept.<sup>20</sup>
- Local government is respected and has been singled out as the most effective point of entry for action affecting the land and people.
- There is no large group of money interests in the region. Growth pressures are just beginning to be felt and there is no current threat of rapid change. As a result, immediate drastic action is not necessary.

A land use program in Tug Hill will provide plans and controls for one of the most important natural areas of the state. If successful, the approach should provide a useful model for other similar parts of rural New York. Furthermore, producing town plans and a regional plan at once should cost less than producing a plan covering state concerns first and then requiring local plans to follow. Implementation of the plan should also prove less costly to both the state and the towns, since much of it would occur at the local level on a cooperative basis.

Aside from the Tug Hill Commission, there has been no agency whose boundaries and interest make it feasible to coordinate an overall planning program covering the Tug Hill region, and particularly its forests and watersheds. County lines and the jurisdictions of the three multi-county regional planning and development boards\* meet in the middle of the Tug Hill core. That is the reason also that no planning studies had been done on Tug Hill as a whole prior to the Commission's existence.

The county planning departments are small, and in the case of Lewis County none exists. Regional planning and development boards can give little local assistance because their funds are tied up in producing broad studies designed by the federal Department of Housing and Urban Development to cope with the grave problems of the cities. Where possible the Commission would draw on and augment the capabilities of these agencies, bringing them into the partnership which the proposed process requires.

\* The three regional boards are the Central New York Regional Planning and Development Board, the Herkimer-Oneida Counties Comprehensive Planning Program, and the Black River-St. Lawrence Regional Planning Board.



*In the Tug Hill core, pressures come from second home development.*

The Commission's second recommendation specifically points to the need for immediate planning for towns impacted by the emerging salmonid program. Not only will this program have a substantial effect on shoreline towns, particularly Richland and its village of Pulaski (within the jurisdiction of the St. Lawrence-Eastern Ontario Commission), but it will also affect the second and third layer of inland towns which lie in the Tug Hill study area. The \$4.5 million hatchery planned near Altmar in the town of Albion is expected to have about 80,000 visitors per year. It is predicted that the maximum number of visitors during a day may reach 5,000. The number of fishermen fishing the streams in the Tug Hill study area (not including stream and lake fishermen in shore towns) is expected to peak at 5-10,000 on a given day. This will create tremendous pressures on the Tug Hill Region towns of Albion, Orwell, Redfield, and perhaps Boylston and Adams.<sup>21</sup> The St. Lawrence-Eastern Ontario Commission's legislation requires that it present a plan by January 1977 for shoreline towns affected. The Tug Hill Commission's proposed land use program would support concurrent cooperative planning by inland towns.

There are, of course, state regulations to control some aspects of subdivision and land development. The district offices of the New York State Department of Health, or the County Health Departments, where they exist, are supposed to receive water and sewage plans for any subdivisions containing five to 50 units. The Department of Environmental Conservation (DEC) reviews all public sewer projects and all plans for subdivisions of 50 or more parcels. DEC also must receive an environmental impact statement for large developments which may adversely affect the environment. In surveying this program, the Commission found the following:<sup>22</sup>

- There is insufficient Health Department staff properly to locate, analyze and investigate subdivision activity.
- A person who circumvents the law, through design or ignorance, is exposed only if someone happens to bring the situation to the attention of the Health Department or DEC.

Most serious, Sections 1115 and 1116 of the Public Health Law are vague and invite non-conformance. A recent court decision in Greene County, New York,<sup>2,3</sup> has raised serious questions about the applicability of the law to recreational subdivisions. In addition, owners have been known to sell off three parcels of varying sizes and then treat the remaining acreage as a new piece of property. The pattern then becomes repetitive, and Department of Health scrutiny is unlikely.

The law does not provide for enforcement at an early stage; corrective measures after the fact can be extremely costly.

In summary, the system is inadequate to

prevent health and environmental mishaps. The Legislature needs to amend the law and provide adequate resources for implementation.

**The Need for a Sign Law.** Although the Tug Hill region has few places where the proliferation of signs obstructs the view of the countryside, it seems appropriate to consider an approach to control of signs at the same time that a planning effort is being initiated. The Commission believes that a proper sign law can actually attract commerce and industry and lure to the region those who would normally pass through for recreation elsewhere. The few sign laws that currently exist in the Tug Hill towns are conflicting. An integrated regional approach is needed to develop uniformity.





*About 770 of 1,700 wood industry jobs are directly dependent on the wood cut in Tug Hill.*

## **B. Maintain a Healthy Economy**

### **RECOMMENDATIONS**

6. Governmental agencies and private organizations pursue the following policies for economic development efforts and when making decisions which affect the economy of the region:

- Keep agriculture, particularly dairying, healthy.
  - Continue to dedicate Tug Hill lands to the growth of forest products and long term forest improvement programs that can strengthen the region's economy.
  - Increase employment, consistent with conditions and constraints within the region. Moderate growth of industry is desirable, particularly when it is non-polluting, uses local resources, has low transportation costs, and can employ local labor rather than relying on in-migration to provide skills. Because of high job multipliers and availability of raw materials, priority should be given to attracting food processing and wood products industries.
- In addition, the following are examples of industries which might be suitable for the region based on the above criteria: Transportation equipment parts, printing, packaged foods, pre-engineered building components, fabricated metals, office furniture, material handling equipment and supplies, business and computer forms, non-electric machinery.
- Encourage retail development and provision of needed specialized services in the region's existing population centers.
  - Encourage government construction projects, including large scale recreational facilities, only after thorough evaluation of positive and negative effects and when there is local support for such projects.
  - Expand recreation industry related to the out-of-doors (e.g., motels, sporting goods, equipment sales, entertainment), but in ways that

will not conflict with goals established at the town and sub-regional levels or cause undesired environmental change.

7. Through joint village and town planning and economic development programs, strengthen those villages which serve as employment and service centers (e.g., Adams, Boonville, Camden, Central Square and Lowville).

**Action:**

a. As a pilot project, the Commission proposes to seek funding for preparing an economic development plan for Boonville.

b. The Commission recommends that villages such as Lowville, Camden and Adams explore the availability of funding for historic preservation of their downtown districts to enhance the attraction for retail and service customers.

c. Conrail and the New York State Department of Transportation should provide for upgrading and continuing the Rome to Camden rail line.

8. Through the proposed regional land use planning program, develop provisions for protecting high-potential sand and gravel resources. Provide for reclamation of mined areas to satisfy environmental and appearance needs.

**Action:**

a. The Legislature should provide funding for qualified manpower to implement and enforce the Mined Land Reclamation Program.

b. The Commission would work with the towns in considering local laws concerning excavations of less than 1,000 tons per year.

**Employment and Personal Income.** By many measures, average income is low and unemployment high in the Tug Hill region. The 1970 census reported 13.3% of the families in the 39 towns earning less than \$4,000 annually versus 9.5% for the state as a whole (not including New York City).<sup>24 25</sup> Unemployment averaged 7.6% for the four counties containing the region during 1974 versus 6.4% for the state as a whole, ranging from 6.7% in Oneida County to 8.3% in Oswego County.<sup>26</sup>

Still, various interviews with citizens and agencies in the region suggest that fewer consider themselves poor than the statistics would indicate.<sup>27</sup>

Overall it is estimated that 29,200 of the region's 81,500 residents are employed but that only 16,700, or 57%, are employed within the region itself. The remaining 43% commute to jobs in nearby urban areas.<sup>28</sup>

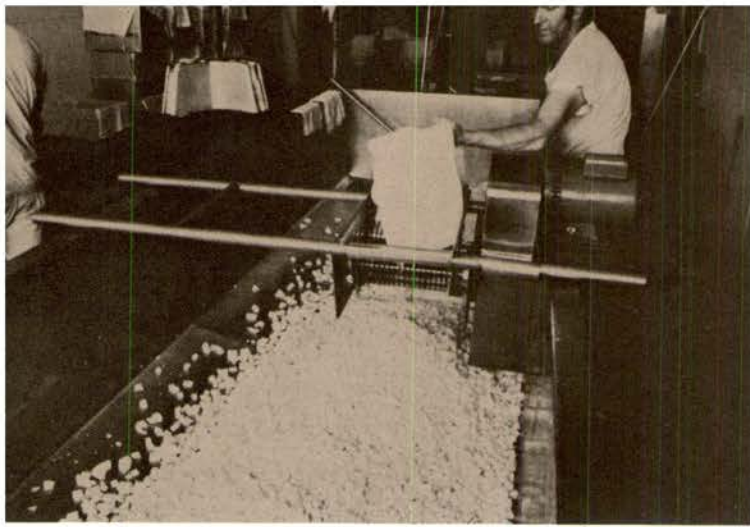
There are approximately 17,700 jobs within the region, all but 1,000 of them held by Tug Hill residents. Of this total, 2,700 are in agriculture, 2,600 in retailing and wholesaling, 1,900 in mining and manufacturing, 1,700 in harvesting and processing of wood, and 1,300 are in recreation. 6,600 are classified more broadly (Federal Standard Industrial Classification [SIC] system) as "other services."<sup>29</sup>

**Food and Forest Products.** The food processing industry has a pivotal effect on the economy of the Tug Hill region. One new job in food processing would create an estimated 5.3 other jobs in the region, thus illustrating the importance of good agricultural land to produce raw materials for the industry. Agriculture, particularly dairying, provides 15.2% of the jobs in Tug Hill and indirectly supports another 10%.

In forest and wood products industries, one new job creates 1.2 to 1.8 additional jobs. The growth potential of the wood processing industry is limited, however, by the present quality of the Tug Hill forests. Only about 770 of 1,700 wood industry jobs are directly dependent on the wood cut in Tug Hill.<sup>30</sup> Two major consumers of Tug Hill timber two decades ago — American Machine and Foundry Company at Lowville and the Boonville Division of Ethan Allen, Inc. — now go outside the region for about 90% of their wood needs.

**Recreation Business.** Because of Tug Hill's natural assets, recreation offers one of the most ready, as well as most controversial, prospects for economic development.

Growth of recreation as a business has a low job multiplier, adding approximately 0.5 additional jobs for each new recreational job. Wages tend to be low and jobs seasonal.



*The Redfield Cheese Factory produces high quality cheese curd and cheddar.*

The three state parks appear to contribute little to local economies. Most of the campers are from surrounding cities and stay only two or three nights, suggesting that they bring their supplies from home.<sup>31</sup> Second home owners stay longer and become part of the local community. The positive and negative factors of second homes on the local tax rate are discussed in Section H on "Home Rule." In winter, snowmobiling and skiing clearly support a restaurant trade.

Questionnaires to citizens in the core area towns indicate opposition to creating tourist attractions.<sup>32</sup> Recreational development, either through tourism or second home building, has a direct bearing on the natural environment of the region, and people do not want the forests and streams changed.

As was noted in Section A, the state's salmonid program and the proposed building of a salmon hatchery near Altmar in 1979 are expected to have a favorable economic impact, not only on the shoreline towns, but also on the second and third tiers of towns inland. From 1981 on, over 110 part-time jobs and 10 full-time jobs are forecast for the Tug Hill region towns as a result of this program.<sup>33</sup> These figures do not include the short range jobs created to construct second homes, campgrounds, motels and other facilities within the region.

The economic impact of an expanding recreation industry is certain to be substantial and underlines the necessity for sound economic and land use planning by municipalities, private groups and individuals.

**Village Service Centers.** Studies by the Commission indicate the economic and social importance of business centers such as Lowville,

Boonville, Adams, Camden and Central Square, which provide employment, goods and services for people living in the surrounding hamlets and countryside.<sup>34 35</sup>

These villages offer opportunity for expanded business and industrial activity and consequent increased employment. Because the future livability of the region is so dependent on these centers, their future vitality should be carefully considered in local and regional planning.

The proposed study to produce an economic development plan for Boonville could be done by the Oneida County Planning Department, the Mohawk Valley Regional Economic Development District, the Boonville Chamber of Commerce, or a combination of the three. Boonville was selected because it seemed to be most in need of an immediate economic effort to make up for previous lost industries.

**Rail Transportation.** Under the proposed federal government plan for realignment of bankrupt northeastern railroads, the Penn Central Rome-Camden line would be abandoned. This move would weaken the economic health of Camden as a small industrial and service center.

Other lines that had been scheduled for abandonment have been reinstated, yet poor service still causes loss of markets for the region's products. In a recent case brought to the Commission's attention, lumber could not be shipped out economically because of the unreliability of rail service.<sup>36</sup>

**Mineral Resources.** Although there has been recent natural gas exploration in southern Oswego County, the region's only valuable mineral resources appear to be sand and gravel. A study by the Soil Conservation Service shows that towns in Oneida and Oswego counties are well endowed, but that superior sand and gravel deposits are quite limited in Jefferson and Lewis counties.<sup>37</sup>

The Commission recognizes in its recommendations the importance of returning mined pits to a natural appearance when mining operations have ceased. The long-term economy of the region will benefit if town planning boards recognize these resources and protect their future availability. Having local sand and gravel helps minimize county and town expenditures for maintenance and construction of roads.



*Central Tug Hill receives 200 to 300 inches of snow each winter.*

### *C. Maintain the Present High Quality of Tug Hill Air*

#### RECOMMENDATIONS

9. The Legislature and the Governor draft and enact legislation that will enable state and private institutions to participate aggressively in the expanding federal program for wind energy research.

10. Consider Tug Hill and corresponding Lake Ontario shore and off-shore locations as prime sites for installation of future demonstration wind units and for further study of wind energy feasibility.

#### Action:

a. The state agency responsible for conducting wind energy research should obtain additional wind velocity information for the Tug Hill/Lake Ontario area in order to evaluate optimum sites for future demonstration projects. The wind-power/pumped-storage option should be considered in siting studies. Also deserving evaluation are the environmental and aesthetic effects of wind systems if located on water, shore or hill areas.

11. Continue the program to measure the acidity of Tug Hill precipitation and integrate this program with an adequately funded state "acid rain" research program to determine acid precipitation patterns throughout the state, the composition and sources of the acid, and the effects of acidity on plant and animal life.

#### Action:

a. The Commission proposes to continue its program to measure the acidity of Tug Hill precipitation and the effects of such precipitation on streams. The design of the program and the interpretation of the results would be integrated with institutions involved in the statewide program coordinated by the Department of Environmental Conservation.

The climate of the Tug Hill region is cold, snowy and windy in winter, and cool and moist in summer. Because the plateau is due east of Lake Ontario, and thus directly in the path of the west-to-east winter storm track, it receives what several authorities contend is the highest annual snowfall east of the Rockies.<sup>38</sup> Moisture from the lake is carried by rising warm air and dumped on Tug Hill in the form of snow or rain.

High annual precipitation, together with the purifying effects of the forest lands, cause a cleaning action over the region. No large pollution sources exist in the region, save Watertown and some of the towns on the Black River. Since the region is upwind of the Adirondack mountains and the Mohawk River Valley, Tug Hill may be important to the airshed of those areas.



*Acid precipitation could affect Tug Hill's long-term future.*

**Energy from the Wind.** The winds of Lake Ontario's east shore and of Tug Hill are known for their high, steady velocity. Generalized maps of wind currents indicate that the area should be one of the best two or three sites in the state for potential harnessing of wind as an alternate energy resource.<sup>39</sup> With this background, and the blessing of the St. Lawrence-Eastern Ontario Commission, which is responsible for studies connected with (shoreline) towns, the Commissioners and staff have sought out all available wind velocity and direction information for Tug Hill and for the Lake Ontario shore and off-shore.

To measure wind velocity on Tug Hill, the Commission contracted with the State University College at Oswego to monitor wind velocity at two existing towers, one near Barnes Corners, the other near Constableville.

The results show no significant difference in summer wind velocities, corrected for elevation above-ground, compared with the Watertown Airport site for which many years of data are available.<sup>40</sup> All sites compare favorably with data taken at Oswego and Nine Mile Point power stations on the shore of Lake Ontario. Wind data have also been obtained from the Cooperative Weather Bureau Station near Boonville, and 1972 data collected for the International Field Year for seven points on Lake Ontario and the Lake Ontario shore are currently being analyzed by SUNY-Oswego through funds provided by the Atmospheric Sciences Research Center in Albany. A useful data base is being generated, therefore, for one of the best areas for wind power sites in the state. This information should prove useful in considering productive sites for demonstration wind systems in the future.

The Commission feels that the Legislature

should provide for the necessary organization structure and "seed" funds to motivate New York's participation in the growing federally funded wind energy research and development program.

**Acid Rain.** Acid rain has been identified by Likens of Cornell and Bormann of Yale as a potential problem in the Northeastern United States.<sup>41</sup> They note that the acidity of precipitation has increased over the last 15 years and may pose a threat to forests, streams and agriculture. Trees can be weakened and made more susceptible to disease and pests. Valuable soil elements like calcium may be washed away, and this, in turn, can result in poor growth of agricultural crops and forests. Acid rain can be catastrophic for fish, especially salmonids, because it may decrease their food supply and prevent their eggs from hatching.

A primary source of acid ions affecting the Northeast appears to be the industrial Midwest.<sup>42</sup> Prevailing westerly winds carry this material over the Northeast.

Because of Tug Hill's great rain and snowfall and the possible long-range effects on agriculture, forestry and the fisheries, the Commission decided to explore the problem. Twenty-two teachers and 665 students from 11 schools participated in a survey between October of 1974 and February of 1975. The Commission supplied collection kits, instructions and data recording sheets. Though variation was high, the data coincided well with expected values based on information reported by Cogbill and Likens (1974).<sup>43 44</sup>

Translating that result, one can calculate that 13,000 tons of man-made acid per year may be falling on the 39 towns of the Tug Hill area. Considering the large volume of precipitation on Tug Hill in a year, and the largely natural resource based economy of the area, acidic precipitation is viewed as an important topic for further investigation.

In the fall of 1975, the Commission initiated a study of the effect of precipitation acidity on streams and their microscopic plant and animal life in the Salmon River basin.

National and state conferences on "acid rain" were held in 1975.<sup>45</sup> Along with the kind of local program which the commission has undertaken, there must be state and federal programs to determine the sources of the acids and their specific effects on living things. Only in this way can it be determined what action may be necessary at the state, national and even international levels.



*The new "N" classification, prohibiting sewage discharge unless it travels through 200 feet of earth, should be considered for remote headwaters.*

***D. Protect Tug Hill's Watershed  
and Unique Areas for  
Enjoyment and Utilization***

**RECOMMENDATIONS**

12. The Commission coordinate and assist cooperative town planning programs in regulating land use which might affect the region's water resources.

13. Evaluate and protect wetlands as a direct link to water supplies, flood control, and fish and wildlife on Tug Hill.

**Action:**

a. The Commission should cooperate with DEC to evaluate the functions and relative values of the region's wetlands within the next two years. (DEC mapping of Tug Hill wetlands, partially financed by the Commission, will be completed during the first half of 1976).

b. Tug Hill towns and villages working jointly are urged to prepare wetlands regulations so that the local jurisdictions may demonstrate their ability to take over the control function authorized in the Fresh Water Wetlands Act.

**14. Monitor Tug Hill's water resources.**

**Action:**

a. In its program to implement the recommendations of the water basin boards, DEC should seek to reactivate the Deer and Sugar River water gauge stations.

b. The Commission recommends that DEC design a program to learn more about the sources and flows of Tug Hill's underground waters. Immediate attention to the possible effects of the salmonid hatchery wells on the water table should be a part of that project's impact study.

15. Towns working in cooperation designate selected Tug Hill rivers and gorges as "unique stream areas." Develop ordinances specifying minimum standards applying to corridors 250 feet from the edge of each designated stream or gorge. The state's Wild, Scenic and Recreational Rivers Act

Figure 3

# TUG HILL STUDY AREA UNIQUE STREAM AREAS



| No.  | Stream                     | Mileage | No.   | Stream                         | Mileage | No.   | Stream                    | Mileage |
|------|----------------------------|---------|-------|--------------------------------|---------|-------|---------------------------|---------|
| 1.*  | Shingle Gulf               | 3.7     | 12.   | Stoney Brook                   | 7.4     | 23.** | Deer River                | 16.8    |
| 2.*  | Inman Gulf                 | 7.8     | 13.   | Prince Brook                   | 8.9     | 24.** | Deer River, East Branch   | 3.8     |
| 3.*  | South Sandy Creek          | 9.4     | 14.   | Fall Brook                     | 9.3     | 25.** | Deer River, West Branch   | 5.6     |
| 4.*  | Abijah Creek               | 1.0     | 15.   | Salmon River, West Fork        | 5.7     | 26.*  | Roaring Brook             | 3.8     |
| 5.*  | Fox Creek                  | 5.0     | 16.   | Salmon River, East Fork        | 9.4     | 27.** | Mohawk River              | 10.1    |
| 6.** | Salmon River               | 2.9     | 17.   | Scriba Creek                   | 12.6    | 28.*  | Stringer Brook            | 4.2     |
| 7.** | Salmon River, North Branch | 8.7     | 18.   | Crandall Creek                 | 4.9     | 29.*  | Lansing Kill              | 9.9     |
| 8.   | Mad River                  | 18.9    | 19.** | Fish Creek, West Branch        | 35.9    | 30.*  | Chase Creek               | 2.3     |
| 9.   | Mad River, North Branch    | 4.1     | 20.** | Fish Creek, East Branch        | 33.6    | 31.*  | Clark Brook               | 1.9     |
| 10.  | Mad River, South Branch    | 3.0     | 21.   | Alder Creek                    | 9.6     | 32.   | Mohawk River, West Branch | 2.8     |
| 11.  | Salmon River, East Branch  | 10.5    | 22.** | Mad River, West Br. Fish Creek | 15.4    | 33.   | Mohawk River, East Branch | 9.5     |

\* Technical Studies completed by Tug Hill Commission

\*\* Technical Studies completed by Department of Environmental Conservation

does not seem to the Commission to be appropriate for the Tug Hill region. Figure 3 shows stream sections recommended for this designation. See Appendix B for recommended minimum standards and regulations.

**Action:**

a. These recommendations are presented for review and use by towns working together as they develop land use plans and controls. Since most "unique stream areas" span town boundaries, ordinances should be enforced on an area-wide basis. (See Recommendation 1b for proposed land use planning and control structure.)

**16. Preserve the gorges (gulfs) of the Tug Hill region as an aesthetic resource.**

**Action:**

a. The Commission recommends that the portion of the region containing these gorges be entered on the National Register as a Natural Landmark.

b. If necessary for their preservation, and as a last resort, Shingle Gulf, Roaring Brook and Stringer Brook should be acquired under the Unique Area classification of the Environmental Bond Act of 1972. (The Commission recognizes that there may be other unique and scenic spots in the region whose integrity can best be preserved through state acquisition.)

c. Smaller gorge sites, such as the Mill Creek Falls, Turin, should be considered for protection as part of the proposed joint town planning programs.

d. Town governments, citizens' groups, and, where necessary, the State Departments of Health and of Environmental Conservation, should act to stop improper dumping, prevent contamination and clear up past trash and litter in the gorges. The State Police should enforce the anti-littering law.

**17. Reclassify Tug Hill streams to conform with best current use.**

**Action:**

a. The DEC should continue its program to upgrade classifications on all Tug Hill streams. Specifically, classifications should be increased to C(T) or C(T)(S) where trout populations are

known to exist and other current uses do not interfere.

b. The Cooperative Tug Hill Planning Board should explore the use of the newly established "N" classification for remote headwaters and should propose appropriate classification changes to DEC.

**18. Develop ways to provide adequate waste disposal and treatment facilities for Tug Hill's small communities.**

**Action:**

a. The Tug Hill Commission advocates that villages and hamlets in the Black River Basin (Constableville, Copenhagen, Turin, Deer River, Martinsburg and Lyons Falls) mount a cooperative effort to obtain state and federal funds for sewage treatment facilities.

b. The Department of Environmental Conservation (DEC) is urged to work with counties and towns to find alternative technologies to existing collection and treatment methods, which are too expensive for small villages and hamlets.

c. Where community sewage treatment facilities are lacking, the Commission recommends the following to villages and towns:

- Adopt and enforce an ordinance governing subsurface disposal of domestic waste water. Such ordinance should be based on the physical capability of each site, including soil permeability, depth to bedrock, depth to seasonal water table and slope. These factors, analyzed in the context of the proposed development, dictate necessary lot size and engineering design.
- Where soil conditions are so severe as to inhibit the operation of all types of subsurface disposal systems, new building construction should be prohibited until sewers are constructed, unless an adequately engineered system has been specified and its long-term maintenance planned for and ensured.

d. Public health law and regulations established under that law should be reviewed to correct rules and limitations on use of new technology which are inappropriate for rural communities.

19. Towns cooperate in evaluating any major proposals to tap the region's water supply. Any diversions out of the four water drainage basins emanating from Tug Hill should be avoided.

**Action:**

- a. The Commission proposes to work with towns interested in exploring the concept of joint town water regulating districts to assure a coordinated response to future efforts to utilize Tug Hill's water supply outside the region.
- b. DEC should conduct eutrophication studies on Pleasant Lake, the source of the West Carthage water supply.
- c. Planning for additional water supply for Boonville should consider both use of Forestport feeder canal waters and a reservoir on Mill Creek for combined water supply and recreation use.

20. Evaluate each project in the Fish Creek Basin to determine the long range impact on Oneida Lake and the Oneida water basin.

**Action:**

- a. Non-structural programs should be considered first to prevent accelerated eutrophication of Oneida Lake. Major emphasis should be directed toward south shore tributaries, the major sources of nutrients in the eutrophication process.
- b. Future proposed facility expenditures which might increase the diversion of Fish Creek waters out of the Oneida Basin should not be undertaken unless there is proof that there will be no negative impact on Oneida Lake or other portions of the drainage basin.
- c. The City of Rome (and other villages and water districts using Fish Creek water) should be required by state law to install meters in its water distribution system to motivate water conservation.

21. Utilize long-term, non-structural flood plain management to reduce flood damage, employing land use planning and control techniques and building codes. Undertake specific flood control projects, such as that proposed by the Town of Annsville, where feasible to protect existing agricultural lands.

Tug Hill comprises one of the major watersheds in New York State. The area's water remains essentially pure and unaffected by the activities of man. Tug Hill is the primary source of pure water for Oneida Lake, the largest body of water wholly within New York State. Tug Hill reservoirs and rivers provide a municipal supply for surrounding population centers (20 million gallons per day are used by the cities of Oneida, Rome and Watertown), generate power and augment the Barge Canal flow (240 million gallons per day flow to the Mohawk-Hudson system).

The Tug Hill region is one of the most well-watered portions of New York. Its annual snow accumulation ultimately provides most of the region's usable water in surface streams or groundwater aquifers, while precipitation during the warmer months of the year is largely used by the vegetation.

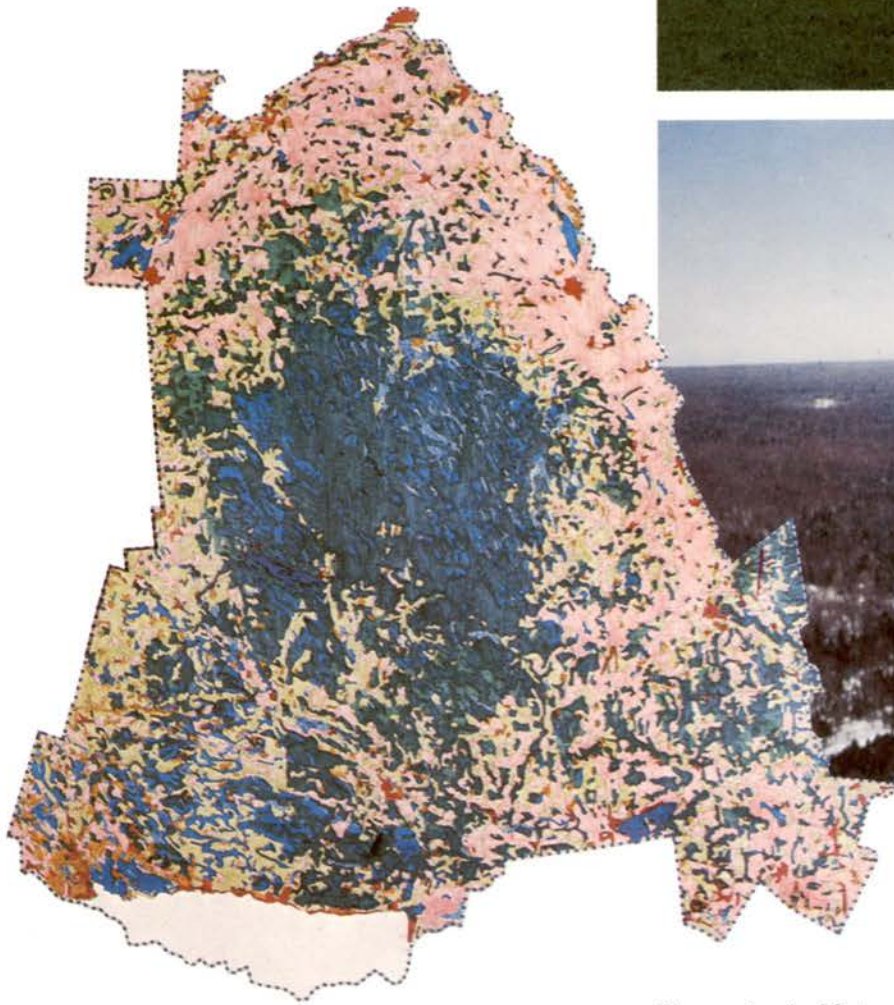
The central "plateau" area is relatively flat, with what would have been its normal drainage patterns disrupted by glacial action. This topography, aided by the beaver, creates a vast network of wetlands which serves as a collector for the precipitation. Aerial photos taken in the spring show parts of the Tug Hill core as one of the wettest portions of the State.<sup>46</sup> Wetlands are extensive, as well, above Oneida Lake in Oswego County. In total, the wetlands cover more than 117,000 acres of the Tug Hill study area.<sup>47</sup> Acting as storage basins, they lower flood crests and minimize erosion. By slowing water flow, wetlands act as siltation traps. Wetlands can also serve as "recharge" areas for groundwater and provide habitats for waterfowl and other wildlife.

With the exception of Oneida Lake, Tug Hill contains no large, naturally occurring lakes or ponds. The total surface area of all 921 bodies of water, including Oneida Lake is only 64,600 acres.

Tug Hill's wilderness core is the source of 11 river systems draining into four major water drainage basins (Black River, Eastern Oswego River or Oneida River, Mohawk River, and Eastern Lake Ontario).

## *The Need for Region-wide Planning*

The future of Tug Hill will be determined by how well land use decisions which affect more than a single town or village are made. Decisions made in one forested town affect the surrounding towns as well. The same holds true for agricultural lands. The wetland and stream system which interlaces the entire area provides the best examples of how a village or town can affect the resources of neighbors downstream.



*Land Use and Natural Resources map for the Tug Hill region.*

|                    |                                             |
|--------------------|---------------------------------------------|
| <i>Pink</i>        | <i>Active agriculture</i>                   |
| <i>Dark green</i>  | <i>Forests</i>                              |
| <i>Light green</i> | <i>Successional forests &amp; brushland</i> |
| <i>Blue</i>        | <i>Wetlands and wet woods</i>               |
| <i>Red</i>         | <i>Developed lands</i>                      |

The region's 39 towns lie in parts of four counties. In fact, county boundaries join right in the center of the Tug Hill wilderness. As a result, prior to the Commission, no governmental body had treated Tug Hill as the single natural resource area that it is.

A major challenge to the Commission was to develop a planning and land use decision making structure that could:

- provide for the future of natural resources as a whole, irrespective of county or town boundaries,
- give people the opportunity to plan for and direct the future of their own surroundings.

## Steps

- 1 Collect and analyze... was collected by to... Commission staff w... towns. Maps and rep... and/or the nine tow... resources, existing la... and historical assets... trends, economic fa... facilities, services, ex...

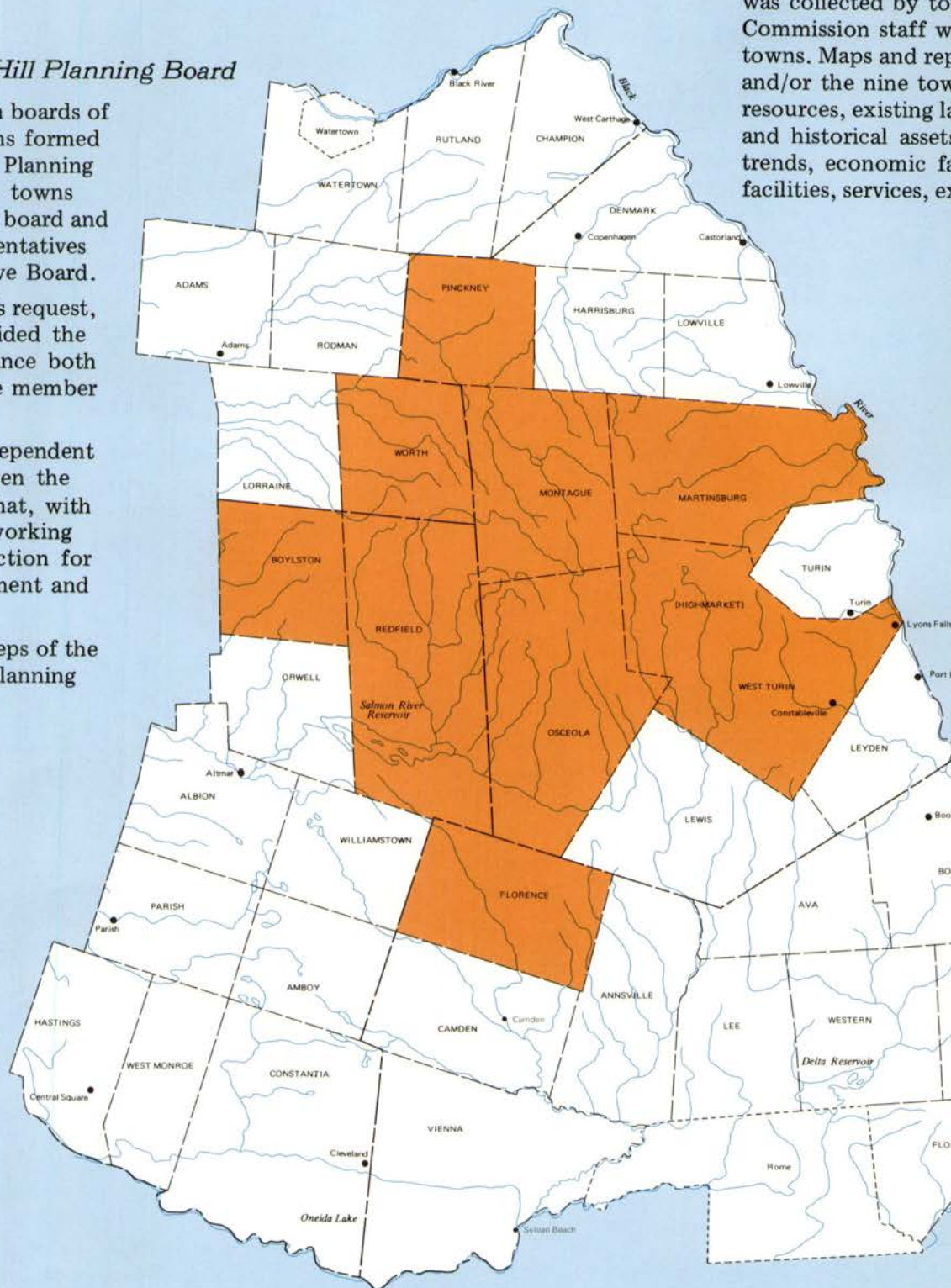
### *The Cooperative Tug Hill Planning Board*

In October 1974, the town boards of nine central Tug Hill towns formed the Cooperative Tug Hill Planning Board. Each of the nine towns appointed a local planning board and then selected two representatives to serve on the Cooperative Board.

At the Cooperative Board's request, the Commission has provided the necessary technical assistance both to the joint board and the member towns.

The fine work of that independent 18 member board has given the Commission confidence that, with sufficient help, towns working together can provide direction for the future of the environment and the people.

Highlighted here are the steps of the nine town cooperative planning process.



Joint town planning is an essential element of the Commission's proposed approach to planning. Recommendation number "1" proposes that the other towns in the region form subregional planning boards made up of towns with common interests. The plans produced by each subregion would be combined to form the regional plan for Tug Hill.

ormation. Available information planning board members and had been assigned to serve the s were developed for each town covering the following: Natural use and structures, recreational population characteristics and rs, transportation, community uses and income.



Map overlays for Martinsburg show interaction between natural resources and the activities of man.

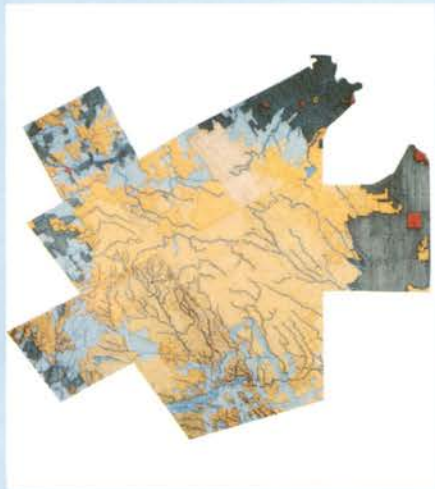


Osceola Town Planning Board in action.

- 2 Formulate goals and sketch plan.** With this information each town planning board could develop specific goals for the future of the town. The result: A town “sketch plan” — a rough description and map classifying land areas into major use categories.
- 3 Produce combined nine town goals statement and sketch plan.** Coordination to produce a combined plan is in progress. During that process matters which affect individual towns, more than a single town, and more than the subregion are being defined.



Pinckney Planning Board puts finishing touches on its town sketch map.



Individual town sketch plan maps brought together to produce an early version of the joint town sketch plan.



Osceola planning board reviews a nine town transportation map with road classifications.

- 4 Consider programs, laws, regulations and standards.** The towns are beginning to address the possible programs, laws, regulations and standards that can be used to implement the plan.
- 5 Draft the Land Use Capability and Development Plan.** The Cooperative Board must draft this plan and review it with the citizenry. After necessary revision each town would adopt the plan with its implementing ordinances and laws.
- 6 Implementation with continued joint town cooperation.**



During every step citizen involvement is necessary – both to obtain useful ideas and to finally obtain local approval.

### *Tug Hill's Importance to New York State*

Tug Hill's study area includes 1,285,000 acres — about one and one-half times the size of Long Island. The central core is a large wilderness area with little access.

Except for an unusual and quite beautiful network of gorges, the topography and scenery are not dramatic.

“Tug Hill is a great shaggy beast lying down with its head between its paws.”\*

The forest which stretches south from the core all the way to Oneida Lake is valuable for its combination of uses: Wood harvest, fish and wildlife, watershed protection and low intensity recreation.

Eleven river systems rise on Tug Hill. Tug Hill waters supply surrounding cities and feed the Mohawk-Hudson system.

Tug Hill is 88% privately owned.

Because Tug Hill's countryside is not startling, those who would have a country retreat have tended to go to the Lake Ontario/St. Lawrence shore or to the Adirondacks. In the last 10 years, Tug Hill's more subtle values have begun to be discovered by urban populations.

Recently the rising cost of gasoline may be prompting people to look for areas closer to home. The region is close enough to Syracuse, Rome and Utica so that suburban living is gradually pushing well up into the region.

\*Edmund Wilson, “Records and Recollections of Northern New York,” *Upstate* (New York, N.Y.: Farrar, Straus and Giroux, 1971)



Tug Hill contains 3,879 miles of mapped streams. Since many intermittent streams are not mapped, actual stream mileage is probably considerably higher. In many portions of the area, the streams have cut spectacular gorges to 300 feet deep. Waterfalls are common, especially along the eastern escarpment.<sup>48</sup>

The presence of only three active stream gauges in Tug Hill (not counting the Black River) is unusual. Proper management and utilization of the water resource requires adequate knowledge of volumes and nature of flow, and such information must be generated over a statistically significant period of time. Two streams of particular interest, because of their effect on Black River flooding, are the Deer and Sugar Rivers. These streams were formerly gauged, but measurements ceased when the United States Geological Survey could not find cooperators to help defray the maintenance costs of the stations.<sup>49</sup>

Groundwater is a major resource to residents of the Tug Hill region. Approximately 30 to 40 percent of the region's population is serviced by privately owned wells and two-thirds of the municipalities derive all or part of their supply from wells or springs. With the exception of the Fish Creek Basin, and small portions of Lewis, Oneida and Oswego Counties, little is known about the quality and quantity of groundwater in the Tug Hill region.

Interest has been expressed by the Oswego County Planning Department in learning more about the source and flow of groundwater in Oswego County, particularly near Altmar and the proposed salmon hatchery. The hatchery is slated to use up to six million gallons per day (m.g.d.) of groundwater, with an equal amount coming directly from the Salmon River and Beaver Dam Creek.<sup>50</sup> Prior to implementation of the hatchery project, an environmental impact statement will be required.

Because a continued pure water supply is so important both inside and outside the region, and because what one town does affects what happens to others downstream, planning related to the water resource will require region-wide coordination with an eye to the broader needs and interests of the state.



*Selected gorge streams should be designated "unique stream areas."*

Photo by John L. Osinski.

**Unique Stream Areas.** Portions of 26 streams have been proposed for special protection through the action of towns working together. These stream sections include some of the wildest and purest stream courses in the state. Twelve run through Tug Hill's unique collection of gorges (locally called "gulfs").

During the summer of 1974, a team from the College of Environmental Science and Forestry at Syracuse did a survey and study of the following gorges and streams.<sup>51</sup>

**Western Gorges:** Bear Gulf, Shingle Gulf, Inman Gulf, Lorraine Gulf (South Sandy Creek), Abijah Creek, Totman Gulf (Fox Creek).

**Eastern Escarpment Gorges and Streams:** Deer River, Roaring Brook.

**Southern Gorges and Streams:** Fish Creek (East Branch), Lansingkill Gorge, Clark Brook, Chase Creek, Stringer Brook.

The western streams, which flow from east to west, show side-slope vegetation which varies considerably between north and south facing exposures. The stratified rock formations have interesting patterns of shadow and light. Hiking through these gorges presents few problems in summer when water is low, though there is some danger of falling rocks.

The gorges on the eastern escarpment drop more rapidly, showing more clearly the signs of erosion. Hiking can be difficult because the stream courses are interspersed with waterfalls. Whetstone Gulf State Park (not studied because it is already protected and managed) provides a fine rim trail with a beautiful view.

In the south, Route 46 runs through the Lansingkill Gorge. That gorge contains Pixley Falls State Park and remains of the historic Black River Canal.

The gorges have sometimes been misused. The Village of Adams presently and the Town of Pinckney formerly have used the gulf areas for solid waste disposal. Where roadside access is available, people have used the gorges as dumping grounds. Some picnickers, hikers and campers have left their litter along the way. In addition to the Adams dumpsite on Towle Gulf (off Lorraine Gulf), litter and dumps were observed at Inman Gulf, Lorraine Gulf, Totman Gulf, the Lansingkill System and off the Cronks Corners Road near Bear Gulf. Sewage effluent discharges into the Deer River were observed near Copenhagen.

Originally these streams were studied with the idea that they might be included under the state's Wild, Scenic and Recreational Rivers Act. As a result of valid questions and comments heard at the June 1975 public forums, however, that idea was dropped. The Commission felt that designating the rivers might actually attract people to visit the streams and trespass on private lands. Draft regulations left too many unanswered questions on interpretation of the act, so that the ultimate effects on landowners were unclear. In addition, corridors were too wide and the Commission did not yet want to eliminate the possibility of additional impoundments on the streams suggested.

Three committees, representing forestry and logging, sportsmen, and farmers, and each including streamside landowners, were formed to recommend an alternative approach to stream protection. The Committees drew heavily on past work by DEC and the New York Section of the Society of American Foresters.<sup>5 2</sup> Their combined recommendations were accepted by the Commission with very little modification.<sup>5 3</sup> The proposed standards and regulations, Appendix B, deserve still further review by joint planning boards before they are adopted for local use.

Of the streams listed on figure 3, extensive information is available for those marked as studied by the Commission. Reports are also available for streams originally studied by DEC for possible inclusion in the state's Wild, Scenic and Recreational Rivers System.<sup>5 4</sup> The rest were included because

of committee or Commission members' firsthand knowledge of uniqueness or importance and should be evaluated more fully before protective regulations are adopted.

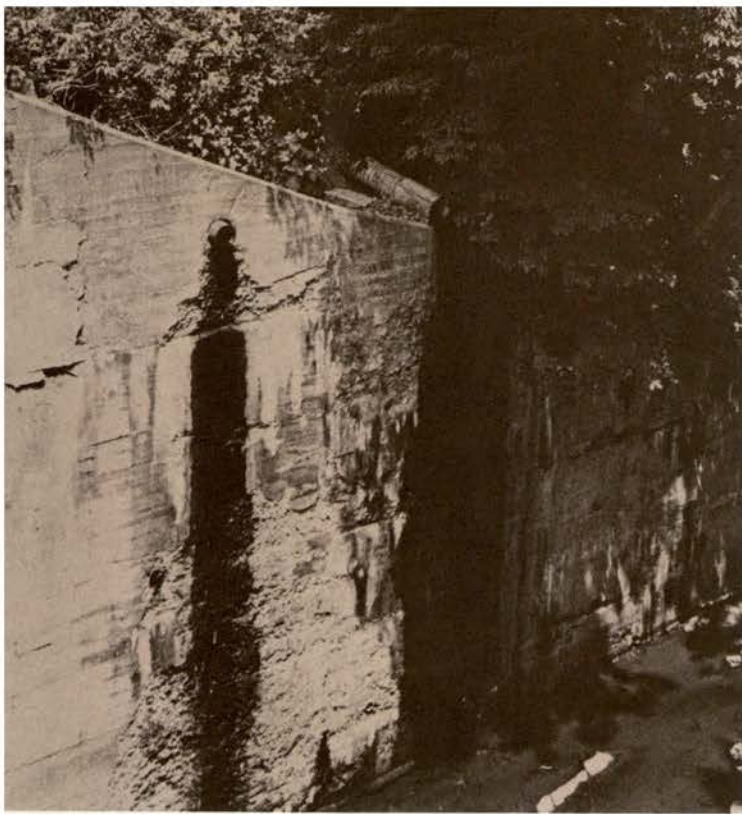
**Stream Reclassification.** The present stream classifications in effect in the Tug Hill region date to the late 1950's and the early 1960's. Most Tug Hill streams were classified at the lowest level, "D," waters for "which data is insufficient to permit a higher classification."<sup>5 5</sup> Though class "D" carries requirements for fish survival, it provides little protection against future degradation.

Stream reclassification has been recommended by both the Black River Basin Regional Water Resources Planning Board<sup>5 6</sup> and the Eastern Oswego Regional Water Resources Planning Board.<sup>5 7</sup> These recommendations generally call for reclassification of lower class waters to "C(T)," "C(T)(S)," or "B." (The (T) stands for "trout," the (S) for "spawning;" both require higher oxygen content needed by trout fisheries. "B" is suitable for swimming.) The Commission supports the general concept of stream reclassification.

The Commission suggests further that the remote portion of the Tug Hill core may be an excellent place to apply the newly established "N" classification. The sole requirement under that classification is that no waste be discharged without "filtration through at least 200 feet of lateral travel through unconsolidated earth."<sup>5 8</sup> "N" classification is intended for remote areas and a stream section so classified should extend to the stream source.

At the same time, though reclassification is an excellent tool to prevent future stream degradation, the Commission believes it should not be applied in a way that will limit normal agricultural practices. The problem of pollution from agricultural runoff will require future study, and entirely new methods will have to be developed to remedy situations that seriously disturb the environment.

**Black River Water Quality.** The Black River has been described as one of the hardest working rivers in the state; municipal and industrial discharges during 1972 exceeded 32 million gallons per day (m.g.d.).<sup>5 9</sup> Today, as a result of the state's Pure Waters Program, there is a noticeable improvement in Black River water quality. All major industries



*Communities should adopt and enforce ordinances governing disposal of waste water.*

and larger communities are "on time" with their pollution abatement programs. The major need now within the Black River Basin is to obtain sewage treatment facilities for the numerous small communities along the Black River and its major tributaries. As the recently completed comprehensive sewage study done for Lewis County<sup>60</sup> indicates, the main problem in obtaining collection and sewage treatment facilities for these communities is economic. Even with the usual federal help, the cost of sewer construction is too high for households.

**Fish Creek and the Oneida Drainage Basin.** The Fish Creek watershed consists of approximately 260,000 acres of the southern portion of the Tug Hill study area, with headwaters in the Highmarket area of Lewis County. Typical of most Tug Hill streams, up to 50% of the total yearly streamflow is associated with spring melt-off of the snowpack.

The headwater region of the basin is forested and undeveloped. Stream gradients are moderate, and water quality excellent, supporting a cold water fishery. The lower portion of the basin, prior to its entry into Oneida Lake, is largely agricultural. This portion of the Fish Creek Basin is a well known warm water fishery, serving as the spawning beds for Oneida Lake's walleyed pike.

Although the characteristics of the basin are largely natural, the Fish Creek watershed has been

developed as a water supply for the cities of Rome and Oneida. Rome has a major impoundment, near Swancott Mills. This reservoir maintains a constant source of water for the Kissinger diversion dam, from which 13 m.g.d. are diverted to Rome. Maximum allowable diversions are 25 m.g.d., and a minimum release of 6 m.g.d. is required for downstream interests. This is a true diversion from the watershed since Rome's sewage treatment effluent flows down the Mohawk River instead of into Oneida Lake. The diversion equals 3.5% of the mean annual measured flow at Taberg.<sup>61</sup> Similarly, this flow equals 1% of the mean flow and 12% of the total low flow inputs into Oneida Lake.

The City of Oneida, which diverts approximately 3.5 m.g.d. from the Florence Creek tributary of Fish Creek, is planning an additional reservoir in the Town of Florence. This is not a diversion out of the drainage basin since the city's treated effluent flows back into Oneida Lake.<sup>62</sup>

Oneida Lake is shallow and naturally eutrophic. Still, concern has been expressed in recent years over extensive algae blooms and aquatic vegetation. Fish Creek annually contributes 44% of the water entering the lake, but accounts for only 10% of the lake's dissolved solids. South shore streams, which contribute only 23% of the total inflow, provide 72% of the dissolved solids.

Although the problem in Oneida Lake is for the most part natural, it should be a major concern that the eutrophication process is not artificially accelerated by the activities of man. Before projects such as a diversion of Fish Creek for water supply are considered, they should be thoroughly reviewed for their effects on the whole basin and Oneida Lake.

Should increased water demand develop for Rome (now withdrawing only one-half the maximum allowable), alternatives should be explored that would prevent any further imbalance of the Oneida Basin.

Since hurricane Agnes in 1972, the frequency of flooding of valuable agricultural land in the Blossvale area of the East Branch of Fish Creek has increased. The Commission supports the Town of Annsville's pending project for construction of flood control levees (to be funded through federal Public Law 566).<sup>63</sup>



Photo by John L. Osinski.

*E. Maintain Agriculture as a Way of Life  
and as a Mainstay of Tug Hill Economy*

**RECOMMENDATIONS**

22. Stabilize the future use of land for agriculture in those areas where soils are particularly suitable for economic success. Through joint action by town planning boards, develop land use control and taxation programs that will support and not unfairly impede the financial well-being of commercial farmers.

23. Establish additional agricultural districts as a short-term means of countering pressures, such as second home development, that might tend to force agricultural lands into other uses.

24. Governmental agencies avoid acquisition or appropriation of viable agricultural land for public purposes (i.e., highways, utility rights-of-way, wildlife habitat, etc.) without full exploration of the alternatives.

25. For assessment purposes, categorize the various portions of a farm parcel according to use. Assess each category for its best use; for example, lands assessed as "agricultural" would include only portions of the parcel suitable for agricultural practice.

26. Governmental and private organizations support efforts of dairymen to increase fluid milk utilization in the urban marketplace through expansion of both fluid milk sales and the manufactured milk products market.

"The term 'agriculture' encompasses more than production and marketing. All aspects of social and community life in farming areas are as much a part of agriculture as the specific farm problems that so often are the sole concern of agricultural policy discussions. Farm people have always been concerned with the quality of rural life. Farming is a business, but life is more than a business."<sup>64</sup>

The Tug Hill region was settled by rugged, hardworking people who established small family farms. These small farms were scattered over the countryside and were for the most part self-sufficient. Crops and vegetables were grown for family and stock use, with the farmer selling only what was necessary to provide staples which could not be produced on the farm.

As industry and commerce gained an increasing foothold in the villages and towns of the region, more of the farm population — particularly young people — left the farms in search of more dependable income in mills, factories and commercial businesses. Most upland farmers, after one or two generations of hardship and poverty from trying to work the poor soils of that part of Tug Hill, also left for the villages. The farmers who remained, aided by mechanization, selectively increased their holdings and expanded production. As a result, farms became larger and in most cases more efficient, but the number of farms decreased.

Today, the prime agricultural lands of the Black River Valley and some of the southeast rim towns provide the highest production levels ever. In these areas, agriculture is the dominant industry. Milk production in the four counties, Lewis, Jefferson, Oswego and Oneida, is substantial. Three of the four counties are found in the top five counties for production in Federal Marketing Order 2. Agriculture (particularly dairying) provides 15.2% of all jobs (2,690) in the region and indirectly supports about 10% of all other jobs.<sup>65</sup> These percentages are substantially greater in the Black River Valley. Not only does agriculture support other business segments, but agricultural practice maintains the scenic and recreational qualities of open space.

Although lands in agricultural use are a significant part of the study region, the proportion varies considerably from town to town, ranging from a low of 1% in Redfield and Osceola to a high of 76% in Lowville.<sup>66</sup> The sparsely populated central core area, which has the poorest soils and most severe climate, contains very few farms. Lands used for agriculture are concentrated in towns around the rim of the region. At present, the location of farming seems in good balance with the best use of the land.

Over the past ten years, pressures have begun to mount that would change agricultural lands to other uses. In the southeastern section above Utica, and in the north along Route 11 below Watertown, the conflict is between suburban crowding and maintaining a pleasing rural life, including farming. In the northeast, the pressure comes from promotion and sale of land for second home and recreational use. Sometimes the construction of

better roads to ensure delivery of a perishable product to the marketplace becomes the avenue to opening an area for development. Sometimes good agricultural land is appropriated for highways or power line rights-of-way. The problem is that good agricultural soils are also the best for construction.

It is important to the economy of the region that agriculture and its associated industries have first priority in use of the land. The Commission lauds the adoption of agricultural districts as a way of helping to keep this priority land use in focus.<sup>67</sup> (As of December 1, 1975, agricultural districts, approved or proposed, total 111,000 acres in the Tug Hill region.) In addition, land use planning and control is recommended to help ensure that development is consistent with the people's wishes to keep agriculture healthy.

Property tax assessment practices also can have an important effect on farm economy. Tug Hill farms have varying percentages of viable agricultural land, some as low as 20% tillable. Currently, the total farm parcel is considered "agricultural" if the owner or operator is engaged in farming at all. The Commission suggests that town assessors categorize the various types of land within the farm parcel and attach the appropriate value per acre to each category.

People need technical help if they are to manage operations in ways that will preserve the resources of the land. For agricultural areas, technical and managerial assistance is provided by the Cooperative Extension Service. Programs to improve the land, such as drainage and spreading lime, have long been available through the Agricultural Stabilization and Conservation Service (ASCS), and the Soil Conservation Service (SCS).

The family farm in today's economy is a commercial business. Its owners (families in most cases) are managers of a many-faceted enterprise. The future of Tug Hill's viable agriculture depends upon sound land use planning and control with taxation safeguards at the local level and with a market that recognizes quality products grown and produced in New York State. The economic well-being of dairymen in Federal Order 2 is in jeopardy because of lack of a cost of production index. Currently the increased cost of production is not reflected in the pricing structure.



*Rising taxes encourage cutting off the land and letting it go for taxes.*

### **F** *Maintain Tug Hill Forests for Timber, Wildlife and Recreation*

#### **RECOMMENDATIONS**

27. Avoid the forest preserve concept for the central portion of the Tug Hill region. The area should be judiciously and carefully managed for multiple use in order to maximize forestry opportunities, including wood use, and the quantity and diversity of Tug Hill's fish and wildlife resource. "Locking up" this area will merely inhibit the development of active, creative management programs for plant and animal life which the region needs.

28. Consider the future of the Tug Hill forests uniformly through joint town and regional planning. Land use plans and controls for the forests of the Tug Hill region should take into consideration the following objectives:

- Protect prime\* forest land throughout the region from the press for development.
- Protect streams and wetlands associated with the forests.

- Protect and enhance fish and wildlife habitats.
- Provide for low-intensity recreation, particularly where there is access to state owned lands.
- Maintain the integrity of the central core forest which is presently devoid of public roads, as a way to discourage development and limit interference with forest and watershed protection.

29. Improve fish and wildlife habitats in the region through increased public/private cooperation. DEC re-examine the customary practice that state monies should not be expended for wildlife programs on private lands unless those lands are open to public use.

#### **Action:**

a. The Department of Environmental Conservation, in conjunction with private landowners and interested organizations, should continue to develop pilot projects which will demonstrate the benefits and methods for long-term voluntary habitat management programs.

b. Funding should be provided by the Legislature for additional technically trained Department of Environmental Conservation field personnel to assist private landowners in management of their land resources. The program should integrate forest management practices and fish and wildlife habitat improvement.

30. Accord appropriate management status and legal protection to unprotected wildlife species.

31. The Department of Environmental Conservation manage state owned lands where feasible for multiple use, i.e., wood harvesting, fish and wildlife management, recreation, and watershed protection.

32. The Commission complete the forest inventory mapping for the region as an important step toward development of forest management, taxation, and wood utilization programs and toward providing local planning boards with vital information on current and potential land use.

33. Develop improved programs for forest management and wood utilization in order to increase quality and quantity of forests and thereby help maintain the forest products industry.

\* Prime forest land is defined here as land which is or has potential to be the most thriving or successful forest and has as its best use remaining in a forested condition.

#### Action:

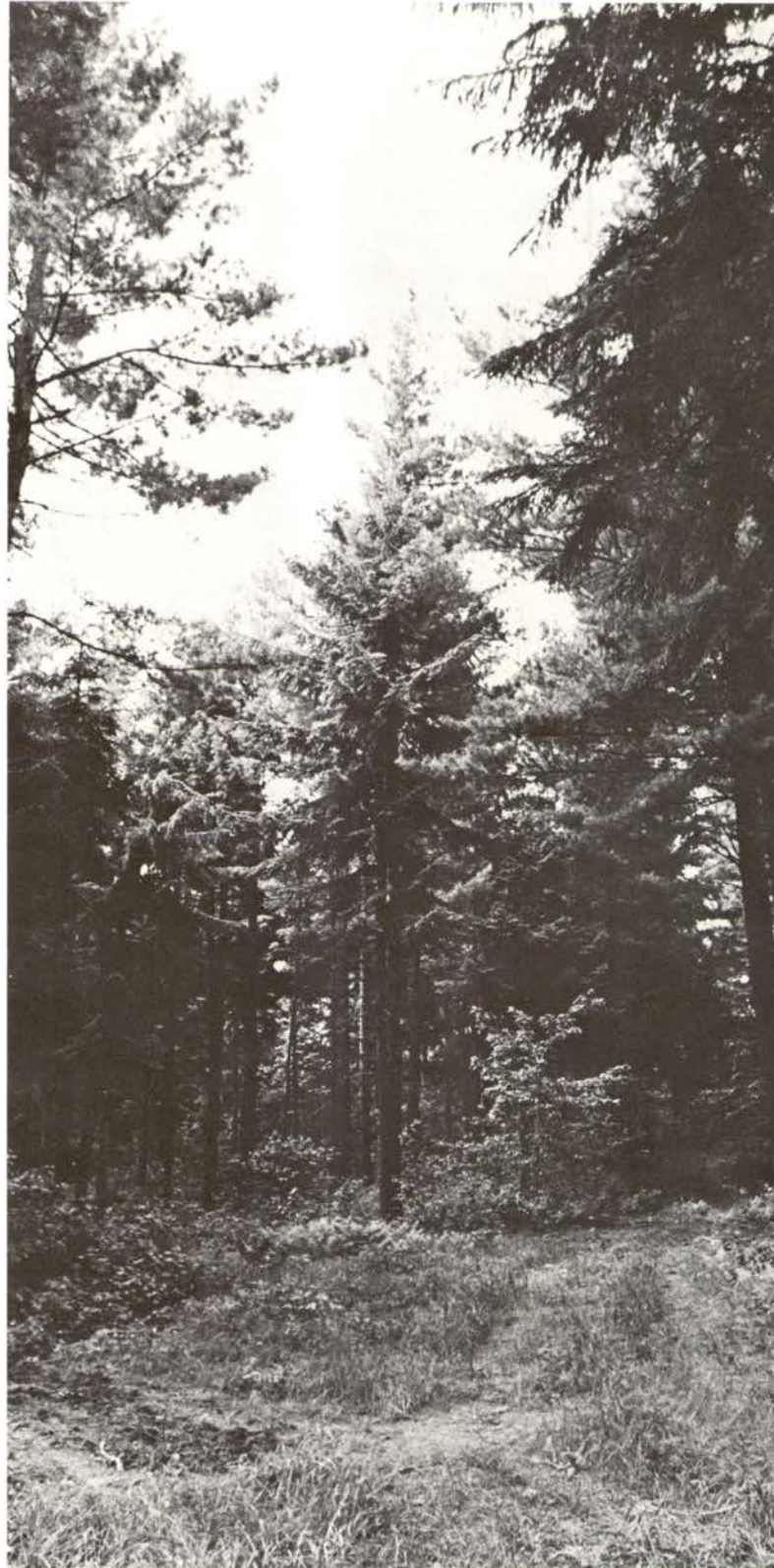
a. With regard to private lands, the Commission in cooperation with private and public interest groups in the region, and using the technical support available through the State University system and the Department of Environmental Conservation, would develop and promote adoption of forest programs for Tug Hill. These programs would be developed to:

- implement environmentally sound forest management techniques;
- investigate the best use of low quality material in Tug Hill forests;
- explore the possibility of local forest taxation programs that would have timber production, wildlife habitat amelioration, or a combination of forest uses defined as "best" use for forest lands, and that would motivate voluntary forest management by private landowners;
- devise a system of forest districts for prime forest land;
- consider regulation of logging practices, perhaps with methods such as bonding or a permit or registration system, that will not be detrimental to the small logger but will help prevent improper practices which can damage stands, unique areas and river banks;
- improve and encourage participation in state and private forest education and technical assistance programs such as the Forest Practices Act and the Rural Environmental Conservation Program, and the New York Forest Owners Association;
- explore silvicultural programs for marginal farm areas reverting to forest land.

34. The New York State Legislature reinstate a revised Forest Tax Law. The State Board of Equalization and Assessment then set "forest value factors" under the revised law that will permit continued dedication of Tug Hill region lands to growth of forest products.

**The Forest Resource and Planning.** The forests of Tug Hill stretch from the northernmost towns of the plateau (Rodman, Pinckney and Harrisburg) to Oneida Lake (see colored Land Use and Natural Resources Map).

The forested area is dominated by the Worth-Empeyville-Westbury soil association, a stony,



*Build the long term productivity of Tug Hill's forests for timber and wildlife use through forest management programs.*

low-nutrient, acidic glacial soil with generally poor drainage characteristics. In addition to low soil fertility, the entire region shares a short growing season and the high snowfall associated with the "lake effect" storms from Lake Ontario in winter. Thus, though Tug Hill's forest produces fine quality wood of some species, it has one of the lowest growing rates in the state.

The forests of Tug Hill are very important, both to life in and around the region and to the state as a whole. It is the combination of values — sawtimber, pulpwood, fish and wildlife, watershed, recreation and aesthetics — that makes forest protection compelling to those who know and use the land. Few Tug Hill lands can show sufficient payoff from growing timber to meet the cost of taxes. Yet in a major situation, balance is reached by the Georgia-Pacific Corporation by leasing rights to 21 sportsmen's clubs, thereby obtaining enough income to cover about 75% of its taxes.

In what has been called "the core" lies one of the largest uninterrupted tracts of forest in the state. That tract contains the headwaters of 10 of 11 of the region's river systems. Securing the future of this wilderness is a necessary path to meeting the combination of goals for the whole region.

To protect the tremendously valuable assets of Tug Hill's forests — primarily from too much commercial recreation and second home development — conscientious planning is essential. Towns working together with regional interests in mind have the potential to influence the future of the entire area for generations to come. Because of the significant role of state owned lands and facilities, planning must be coordinated with DEC's own efforts to prepare a management plan for state owned lands.

**Fish and Wildlife.** The wildlife associated with Tug Hill forests is another resource valuable from economic, recreational and aesthetic points of view. A total of 400 species of vertebrates has been identified in the region, including 57 mammals, 280 birds, 25 amphibians, 19 reptiles and 109 fishes. About 138 of these species are rarely encountered, but only a few are considered endangered. Future planning and management will be necessary to maintain the present balance of species within the region.<sup>6 8</sup>

"Geography, soils, snow and man account for the principal forces that influenced the Tug Hill region's fish and wildlife resources. Through eons, they have molded the character of the plant and animal communities living there. Now some species that once lived in the Tug Hill region are ecologically barred from it for the foreseeable future. Still, while the hands of time cannot be turned back, the future wildlife potentials of the Tug Hill region are exciting and attractive."<sup>6 9</sup>

Trout require cold water (less than 70 degrees Fahrenheit) and a high dissolved oxygen concentration. For this reason, cutting in close proximity to streams, thus removing shade, and clear-cutting anywhere in a watershed must be done only after consideration is given to the effects on fish life and bank erosion.

Though the Fish and Wildlife Management Act program has not been widely used in Tug Hill, the opportunities for less restrictive public/private cooperation for habitat management programs are great. The current DEC program with six private landowners to improve the Highmarket deer yard is a good example of the potential for cooperation. Recommendations on public/private cooperation in wildlife management programs draw from the report of the Adirondacks *Fish and Wildlife Management Task Force*.<sup>7 0</sup>

The fish and wildlife of Tug Hill are discussed more fully in the next section concerning recreation.

**Commercial Forestry.** Timber inventory data indicate that about 775,000 acres in the Tug Hill region (60%) support commercial forest\*, of which 686,000 acres are held in private ownership. Hardwoods predominate, and softwood stands are limited to about 15% of the area. Sawtimber stands contain the majority of both sawtimber and growing stock volume but are present on only 25% of the commercial forest area. About 1.3 billion board feet of sawtimber and 600 million cubic feet of growing stock have been estimated to be present. Tug Hill forests, however, can be described generally as poorly stocked, with a low proportion of high quality timber.<sup>7 1</sup>

\* Ferguson and Mayer, 1970, define commercial forest land as "forest land that is producing or capable of producing industrial wood and is not withdrawn from timber utilization."

The entire area represents second-growth forests resulting from extensive timbering almost a century ago. Active harvesting continues today, and some high quality hardwood timber is being removed to supply the sawmills within the area. Soft- and hardwood pulp are also being removed for use in nearby paper mills.

During the summers of 1974 and 1975, an attempt was made to develop an economic procedure that might be used to obtain a full Tug Hill forest inventory. Core area forests were mapped and classified into seven categories.

A timber cruise was conducted in Montague, Osceola and Redfield for 250 randomly selected 1/5 acre plots. These data used in conjunction with the forest maps, allow computation of volumes of sawtimber and pole timber present for the towns, and when used with soils type data, make possible an evaluation of forest productivity. The resulting information will be useful both for town planning and for developing forest management and taxation programs.<sup>72 73</sup>

Maintaining and improving the forests is important to the long term prospects for area employment. As previously noted, 770 of 1,700 jobs in the region's forest and wood industries are dependent on Tug Hill wood, representing 4.6% of the total jobs held by the region's residents. Added to the 770 are 670 jobs in other employment categories supported by people in the wood industry, and 380 resident jobs related to forest recreation. This means that 10.9% of total resident jobs are directly or indirectly related to the forest of Tug Hill.<sup>74</sup>

Interviews with loggers, foresters and woodland managers, and visits to 18 mills in and around the Tug Hill area, gave the Commission insight into cost and operational problems.<sup>75</sup> Even with forest improvement programs, the difficulties will probably not lessen in the near future. If current trends continue, the larger corporations will expand their operations, making it harder and harder for the small, independent operation to compete.

**Forest Management.** Tug Hill forests pose a special management problem. The problem is compounded by the adverse climatic conditions, the prevalence of poorly drained and thin soils and



*Wherever feasible, DEC should manage state owned lands for multiple use.*

a legacy of questionable past harvesting procedures. A long term program will need to be developed and implemented if one is to see improvement, rather than decline, of Tug Hill forests.

The presence of an abundance of poorly formed, damaged stems in the Tug Hill forest, often the result of years of "high-grading," might be reduced by timber stand improvement techniques to allow the few better stems to prosper. Possible limited clear-cutting or strip-cutting to provide browse for wildlife might be incorporated in multiple use management plans for state and private tracts. Reforestation, along the lines of the "tree farm" program, might be considered for selected lands.

Improvement of forest management could be accomplished by using appropriate silvicultural techniques to reach a variety of forest management goals. Development and use of forest improvement programs will require educational programs directed at landowners and loggers.

The role of the Forest Practices Act (FPA) and its effect on the Tug Hill region has been studied, and there are strong indications that the FPA program should be expanded and broadened to extend to landowners a complete resource management service program. As of September 1974, there were 403 cooperators covering 69,000 acres in the 39 Tug Hill towns.<sup>76</sup>

**Forest Taxation.** Land is generally assessed in New York according to its "highest and best use," meaning the most profitable immediate use of the land. But this may not be the best long term use of the land, and a change on one property can have negative effects on surrounding properties. According to Tug Hill citizens, forested land usually would be "best" used for timber production and wildlife habitats, not development. Taxation based on the sales price of developed parcels does not encourage maintenance of the forest for forestry use. High assessments cause the owner to sell the forest land for developed recreation or to liquidate the growing stock too early. The methods of assessment of

forest land are in sore need of improvement. Site productivity should be taken into account in assessments. The Fisher tax law was not useful for Tug Hill forest land. Very few parcels were ever listed under it.<sup>77</sup> A successor forest tax law enacted in 1974 was suspended before it could be put into effect. It is hoped that a new forest tax will be developed and eventually prove useful. Since forest tax law formulations are not expected to provide a tax shelter for forest land used for wildlife, recreation, watershed and aesthetic values, however, a need is still seen for an incentive system designed to promote a variety of compatible forest uses.



*DEC's program in the Tug Hill Highmarket deer wintering area is an excellent example of public/private cooperation.*



*Whetsone Gulf State Park has a fine rim trail.*

**G. *Maintain the Recreational Values of Tug Hill while Providing Economic Benefits for Those Who Live Here Now***

**RECOMMENDATIONS**

**35. Coordinate planning at town and county levels in regard to recreation and recreational resources to assure that local plans for recreation fit together and are consistent with other long range planning goals.**

**Action:**

a. The Commission's services would be available to towns and villages to aid coordinated planning for recreation. Liaison would be maintained with the Office of Parks and Recreation and DEC, as appropriate.

**36. Develop trail networks for various uses including hiking, cross-country skiing and snowmobiling which link state lands, selected gorges and other historic and scenic attractions. Design and mark trails in such a way as to avoid non-compatible uses.**

**Action:**

a. During the next three years the Commission proposes to work with county and town governments and with appropriate state agencies to plan a coordinated trail network and steps for trail development and long term maintenance.

b. Certain rights-of-way with easy grades and moderate widths should be laid out and marked for winter use by the cross-country skier and snowshoer. Consider promoting the region's potential for national and international cross-country skiing competition. Explore the possibility of Tug Hill serving as an alternate site for the 1980 Winter Olympic cross-country events should snow be insufficient at Lake Placid.

**37. Develop joint town and county programs to resolve conflicts caused by increasing use of the Tug Hill area for snowmobiling. Limit the use of snowmobiles in the region to environmentally appropriate and safe areas and trails.**

**Action:**

a. The Commission will propose legislation that would return a percentage of snowmobile registration fees to "counties of principal use" (as designated on each registration form) for maintenance and grooming of snowmobile trails and for associated facilities such as parking.

b. Towns where snowmobiling is particularly intensive should investigate the fees-for-trail-usage approach adopted by the Town of Webb in Herkimer County.

c. Town and county governments should work with snowmobile clubs to develop a plan for enforcing state ordinances on snowmobile operation and littering. Additional local ordinances should be adopted where necessary to fulfill plans.

**38. County governments covering the Tug Hill area request the State Department of Transportation to earmark a portion of several million dollars in funds received through the Federal Highway Administration for the construction and maintenance of bicycle paths.**

**39. Through cooperative action of towns, limit the use of trail bikes and all-terrain vehicles to existing roads and designated areas and trails. DEC take similar action for state owned lands.**

**Action:**

a. The Commission would provide assistance to towns wishing to develop local ordinances on motorized vehicles.

**40. Maintain the region's current wildlife balance, provided by private land ownership and leasing of recreational rights and by existing state land ownership, at least until the extent of the hunting and fishing pressure which the region can withstand is shown more clearly. Acquire easements, when this can be done without using the power of eminent domain, for additional fishing access as planned by the Department of Environmental Conservation.**

**41. Study and implement, as appropriate, selected recreational development projects.**

**Action:**

- a. The Commission supports the proposal by the Thousand Island State Parks and Recreation Commission for a Black River Recreation Way, principally for canoeing.
- b. Rebuild the impoundment at Sears Pond to its original capacity. The Town of Montague should adopt a plan and land use controls to govern development stimulated in that vicinity.
- c. Prepare long range plans for the development of a recreation area at High Falls and Kings Falls just east of the Village of Copenhagen. The village, town or county should consider acquiring additional lands on both sides of High and Kings Falls to protect the quality of these unique resources and guarantee their access.
- d. The Niagara Mohawk Power Corporation should involve town, county and state interests in its evaluation of the long term feasibility of utilizing land around the Salmon River Reservoir and Falls for recreational purposes. Explore acquisition or lease by the state or county of portions of lands owned by Niagara Mohawk for limited park development.
- e. Frenchman Island should be developed for limited and low-intensity use, but only if adequate protection can be provided to the facilities year round. Care of the historic lighthouse should be included in development and maintenance plans.
- f. Evaluate the need for an additional launching site at Delta Lake.

42. The appropriate state, county or local government agency experiment with the new "floating park" concept when recreation needs dictate and a promising site is found.

43. Develop methods to limit disturbance of Indian archaeological sites until such sites can be thoroughly studied by qualified specialists.

**Action:**

- a. The Commission would explore the development of model landowner agreements, ordinances and programs which could be used by towns and counties to protect sites.
  - b. Jefferson County towns covered by the St. Lawrence-Eastern Ontario Commission should participate in such programs.
44. Through joint town or county planning, prepare indices of important historical structures and sites

with evaluation of each site. Submit the most important structures for inclusion in the National Register of Historic Places. Town plans should include preservation projects where needed. For sections of the region not yet covered by a published architectural design study of cultural and historical resources, county historical societies should develop such projects and seek funding from the New York State Council on the Arts.

45. Encourage utilization of the resources and environmental heritage of the Tug Hill region for educational purposes, with particular emphasis on schoolchildren of the region.

**Action:**

a. The Commission would organize committees to explore the educational use of Tug Hill's natural resources including the possibility of developing informal nature trails or small nature centers.

46. Local or state government agencies plan and provide for the support facilities and personnel necessary to the functioning of any new recreational lands or facilities that are added to the region's inventory. DEC should consider the need for parking space when preparing the state lands management plan.

**Recreational Pressures.** Recreation in the Tug Hill region is important both to those who live there and to citizens of the state as a whole. Its forests, rivers, gorges and wilderness area make the region a desirable place to live and to visit. For most, Tug Hill recreation is active and informal — hunting, fishing, walking, cross-country skiing, snowmobiling, picnicking and just enjoying the scenery.

Tug Hill is just beginning to be discovered as a recreational site close to Syracuse, Utica, Rome and Rochester. At the same time, people are beginning to come from much farther away. Between 23% and 39% of the users of Tug Hill's state parks come from outside the northern or central New York area, that is, either from other parts of the state or from out of state.<sup>7 8</sup>

Pressures are increasing as urban dwellers look for a second home retreat or a place to go for weekend recreation. In spite of the economic recession, the promotion and sale of Tug Hill land in the



*Canoeists glide by the remains of the historic Black River Canal.*

Photo by Larry Cole.

cities continues to increase. Certainly there would be short term financial gain to people active in the land market if access to remote areas were to increase, but this is a direction which would be contrary to recommendations concerning Tug Hill forests. Again, then, land use planning to secure the integrity of Tug Hill farms and forests is urgent.

#### **Snowmobiling and Other Recreational Vehicles.**

Snowmobiling represents one of the most important forms of seasonal outdoor recreation in Tug Hill. In 1974, Oneida County ranked first in the state in over-snow vehicles, Oswego was fifth, Jefferson eighth and Lewis 23rd. Fees of \$106,000 for registration were paid to the state in that year by the citizens from these four counties.<sup>79</sup> Though 50% of a community's or county's snowmobile-related law enforcement expenses are reimbursable by the state (up to \$25,000 per county), the Commission recommends that a higher portion of the fees received be returned to counties for development and maintenance of snowmobile trails and facilities.

Unlike other forms of recreation, snowmobiles provide unlimited rapid access to all parts of the region. Also, snowmobiling can be more abusive to nature than other open space recreational activities.

Machines operated off designated trails can damage plant life, particularly young trees, and endanger the animal life habitat.<sup>80</sup> The long range access to all parts of the region can result in litter and other abuse that is very hard to control. Snowmobiling on populated town roads has resulted in serious accidents.

A harmony must be achieved between the user and the environment so that snowmobiling may continue without landowners' resentment due to misuse. New and interesting trail systems, adequate law enforcement and individual responsibility could go a long way toward accomplishing this harmony.

As with snowmobiles, trail bikes and all-terrain vehicles (ATV's) provide rapid access to the remote areas of the region. Complaints of abuses and disturbances due to these vehicles were heard at the Commission's public forums.

**Other Linear Recreation.** Tug Hill snows start early in the winter and last far into the spring. Commercial downhill skiing facilities are maintained at Snow Ridge at Turin, Dry Hill near Watertown and Woods Valley at Westernville, but the so-called "alpine" nature of the sport is limited

by the short length of the slopes available. On the other hand, cross-country skiing is becoming more and more popular. The environmental factors within Tug Hill — large rural open spaces, rolling and interesting terrain, and a long sustained snow season — create ideal conditions for the activity. Winter hiking on snowshoes is compatible with cross-country skiing, but neither does well on heavily-used snowmobile trails. Dog sledding is another winter activity that is beginning to appear.

Summer linear recreation includes hiking, biking, and horseback riding. The opportunities for varied trail systems, compatible with winter trail needs, around Tug Hill are great.

Establishment of adequate trail systems for compatible uses is dependent on careful planning for use of state, county and town lands, power line rights-of-way, abandoned roads and railroad rights-of-way, and for land acquisition or purchase of easements through the Environmental Bond Act of 1972.

**Fishing.** Tug Hill's fisheries are extensive and varied. In the central core is one of New York's finest cold water fisheries containing naturally reproducing brook trout. At lower elevations where water temperatures are warmer, streams and rivers are stocked with warm water species such as small-mouth bass and perch. The Black River from Boonville to Lyons Falls contains both brown and rainbow trout, some of large size.

Most famous in the peripheral warm water fisheries is Oneida Lake's walleyed pike. About 200 million fry, raised at the Oneida Lake Hatchery in Constantia, are released annually. Angling pressure is heavy and 25% of the walleye population is caught annually.<sup>8 1</sup>

Of course, the most dramatic fishing development is the state's salmonid program. Lamprey control and extensive stocking have provided abundant fishing for coho, chinook and other members of the species. The program could be slowed, however, by reported discovery in 1975 of the accumulation of toxic PCB's (polychlorinated biphenyls) in Lake Ontario fish.

**Hunting and Wildlife.** The number of sport hunters and fishermen utilizing the region's forests continues to increase. Studies conducted by the

Institute for Man and His Environment indicate that the projected population of hunters and fishermen "should come close to using all inventoried facilities at near capacity levels by 1990."<sup>8 2</sup> At the same time, public participation in nature clubs, bird clubs, wildlife photography and interpretive programs is growing.

The white-tailed deer population, estimated at about 6,000 in the region, is limited primarily by the heavy snows in winter.<sup>8 3</sup> Deer cannot reach browse and are easy prey for dogs and predators if they sink into the snow more than 20 inches. The four deer yard areas in the region provide browse and shelter in deep snow. A larger deer population would require additional deer yards.

Small game hunting for ruffed grouse, woodcock and snowshoe hare is excellent where the foliage is in the right stage of growth and combination.

A large portion of the central core is used by sportsmen's clubs, many of whom lease portions of the Georgia-Pacific Corporation's 55,000 acres. The limited memberships of these clubs keeps the hunting pressures under control. However, wildlife is the property of the public and not the landowner, and many people have asked that Tug Hill lands be made more available. Statements in other sections of this report have held that adequate amounts of land must be available as wildlife habitats, so that the balance between wildlife resources and hunting demand is at least maintained. Much more information on the capacity of Tug Hill for hunting and fishing would be needed before considering changes in the land ownership pattern.

**Recreation Areas and Facilities.** The following specific recreation projects proposed to the Commission appear to merit further action:

- The Black River Recreation Way - The proposal, first made by Commissioner Anne H. Shaver of the Thousand Island State Parks and Recreation Commission, calls for acquiring several canoe launch sites and providing picnic tables and lean-tos at selected spots along the route.
- Sears Pond Impoundment - The pond, once a small but beautiful area for fishing and picnicking, is located in Montague on the Deer River.
- High Falls and Kings Falls - These two scenic areas lie on the Deer River downstream of Copenhagen.



*The Highmarket Church — Action will be necessary if historic structures are to remain.*

Kings Falls can be utilized for camping, swimming and picnicking.

High Falls is more suited for a general scenic lookout. It would be necessary eventually to build a walkway along the side of the gorge below High Falls and perhaps directly across the falls to be able to appreciate fully the scenery.

A trail system provided through easements might be developed to connect High Falls and Kings Falls, which are about three miles apart.

- **Salmon River Reservoir and Falls** - The falls, reservoir and much of the surrounding lands are owned by Niagara Mohawk Power Corporation and are used for hydroelectric power generation. These lands are experiencing increasing unregulated use. Potential for recreational use is limited due to the reservoir level and stream flow fluctuations that are necessary.

Niagara Mohawk is currently required to evaluate recreational potential and the environmental impact of possible recreational development projects as part of the process to renew its license with the Federal Power Commission.

It would be beneficial for the power company to involve appropriate state, county and town officials in this review.

- **Frenchman Island** - This 23-acre island in the Constantia portion of Oneida Lake was recently purchased by the State Parks and Recreation Commission.

The Constantia Environmental Management Commission is concerned that without adequate policing the island will be vandalized.

- **Delta Lake Launch Site** - People at public forums pointed out the need for an additional boat launching site.

The concept of the "floating park" advanced by Commission staff member Patrick Smyth should be explored and tested when the need for additional park lands develops.<sup>8 4</sup>

The concept involves state or local government leasing of land from a private owner and using it as park for low intensity use until its timber is mature enough to be cut. In the interim, taxes continue to be paid to local government. When the timber is mature, the lease expires, the park is moved to another location and the owner harvests his timber.

The benefits of this approach are that the land gets its fullest use, property taxes continue to be paid, and both timber and recreational needs are met.

The Commission has recommended that attention be given to parking and other facilities which support public use of lands. Many people have pointed out that there is a need for parking space for those who use state land, both for safety and to reduce the cases of trespassing or of blocking access to privately owned lands.

**Tug Hill's Historical Heritage.** Buildings, bridges and other structures which have an historic or architectural interest are important to the character and pride of Tug Hill communities and should be preserved. A brief study undertaken by the Commission lists 161 historic structures and 47 historic markers.<sup>8 5</sup>

The north side of Tug Hill contains one of the richest archaeological areas in the northeastern United States. More than 60 sites of native American settlements stretching back over 8,000 years have been identified in Jefferson and Lewis Counties.<sup>8 6</sup> Some sites offer opportunity for recovery and could prove to be a valuable educational and historical resource for Tug Hill and the Lake Ontario shore.



*Responsive sympathetic aid in helping to recognize and solve local government problems is important if "home rule" is to survive.*

## **H. Preserve "Home Rule" and Curb the Growing Cost of Government (Taxes)**

### **RECOMMENDATIONS**

47. Seek new ways to help local governments fulfill their powers and responsibilities effectively.

#### **Action:**

a. The Commission would begin a pilot program to deliver responsive technical assistance to town and village officials in the region. This program would be carried out, for the sake of efficiency, in conjunction with the Commission's efforts in aiding local planning. It would, however, be administered and measured as a separate activity, and a report of results would be forwarded to the appropriate state agencies for possible application in other rural areas.

48. Commission and county governments support and assist those local governments of towns and villages that have a mutual interest in exploring the cost and effectiveness of government service deliv-

ery. Seek opportunities for consolidation and cooperation to improve service and reduce cost.

49. Incorporate in joint planning efforts development of procedures designed to effect consistent taxation of property in ways that will reduce pressures caused by speculation and land promotion.

#### **Action:**

a. The Commission would explore taxation and land use control approaches, conferring with county planning and finance departments and with the State Office of Equalization and Assessment, in order to recommend revisions in taxation policy and law that would encourage desired land uses and bring about a region-wide pattern of consistency.

50. Revise existing law on taxation of state owned lands in the Tug Hill region to effect a consistent tax policy in all towns of the region.

**Action:**

a. The Commission would propose legislation to require that the state pay town and school district taxes on lands owned by the state for use by the Department of Environmental Conservation as a fish hatchery, game farm, game management area, game refuge or for reforestation purposes, except for the improvements (such as buildings) erected by the state.

**51. Implement policies adopted by the Commission on ownership and acquisition of lands by the state. The policies are:**

- The proportion of state lands in the Tug Hill region should remain at its present level of approximately 11%, but the Commission believes it is also critical that selected unique, fragile and other environmentally significant areas be acquired for the public domain. To compensate for these acquisitions, and yet retain the open space character of lands sold when new state purchases are made, the State of New York should retain certain development rights. Thus, lands that pass through state ownership in the Tug Hill region would always be undeveloped. The balance between newly acquired and sold lands should not differ by more than 2,000 acres at any time.
- Where better access to state owned lands is necessary, the procedure of easement rather than purchase is recommended.
- Acquisition of land or purchase of development rights for fragile and unique areas should be considered when other methods of protecting the land for the future are not proving adequate.
- There are 23 scattered parcels of Forest Preserve land in the region which vary up to 250 acres in size. Although they must now be kept "forever wild" under the provision of Article 14 of the Constitution, the so-called "detached parcels" amendments permit sale or reclassification of such lands outside the Adirondack and Catskill Parks for parcels of less than 100 acres. The Commission believes that 14 such parcels less than 100 acres should be reclassified or sold. Specific disposition should be discussed with the appropriate county planning boards, county legislatures, town boards and/or planning boards.

**52. Towns cooperate to regulate second home development so as to have beneficial, rather than detrimental, effects on taxes and the environment. Include subdivision and mobile home regulations and local road standards in cooperative plan ordinances.**

**Action:**

a. The Commission proposes that there be further research on the effects of mobile home and second home development on the cost of governmental services and an individual's taxes.

**53. Develop a region-wide transportation policy and plan as part of the proposed comprehensive planning program. The Commission recommends that planning bodies explore the possibilities for alternate non-highway transportation modes, especially for the more populated areas.**

**Action:**

a. The Commission would make its services available to help coordinate transportation policy and plans among town, village, county and state governmental bodies.

b. County highway departments should revise their permit systems for curb cuts on county roads and establish standards for the distance between new roads entering county highways.

c. Town and county governments should evaluate the possible use of the "scenic roads" concept adopted by New Hampshire as a possible means of protecting the scenic beauty of some Tug Hill roads.

d. Trails for use of bicycles and snowmobiles should be planned to provide transportation alternatives to the use of cars.

e. Railroad lines should be improved and developed rather than abandoned (see section B and recommendation 7).

**54. Town and county governments embargo the use of herbicides by utilities and highway departments as a method of clearing brush and roadside vegetation.**

**55. Develop by coordinated effort among state, county, town and private agency officials ways to improve rural services, particularly health services, solid waste disposal, sewage, water supply and housing.**

#### Action:

a. The Commission would develop and seek to fund a demonstration service-delivery program in one town or group of towns and villages. The program involves a task team composed of members of various agencies and organizations which would inventory service needs and analyze the extent to which present and potential services fulfill those needs.

56. The Cooperative Tug Hill Planning Board adopt a resolution that additional utility pathways for power lines and pipelines not be allowed to cross the forest wilderness of the Tug Hill core. This should not necessarily preclude the generation and transmission of power from environmentally sound sources outside that portion of the core where no public roads exist.

**Responsibilities of Town and Village Government.** The Commission has found that town and village government generally has the respect and trust of the people.<sup>87</sup> Feelings become less positive as units of government become larger and further removed. Local officials, mostly volunteers or very low paid, often have little idea what might be available to them from various state and federal agencies. They often are disconnected from potential outside help because of lack of knowledge, lack of trust and a feeling of futility in approaching the larger bureaucracies.

The survey, *Communities of the Tug Hill Region*, points out that for this region, local government is "a good entry point for development programs, probably better than either the private voluntary sector or county and state government."<sup>88</sup>

At the same time the *Communities* report also points out, "local government is fragile in the sense that local government has served the private needs of individuals much more than collective or social problems, to which any response is bound to generate negative, as well as positive, fall-out. Any extended function of local township government must be built up slowly, or the current positive expression could turn negative very quickly."<sup>89</sup>

In this light, local government is vulnerable if help is not provided so that programs can succeed.

In summary, the Commission's studies and field experience indicate that officials of Tug Hill towns and villages need responsive, sympathetic aid in recognizing and solving local government problems.

**Local Finances.** Revenues are derived by property taxation by county government, by cities, towns and villages, and by school, fire and special districts. School district assessments are large, and in each of the four Tug Hill counties in 1969 school taxes accounted for between 45% and 56% of all property taxes. County government represented up to one-third the property tax levy.<sup>90</sup>

Town governments derive the bulk of their revenues from real property taxes and from state aid based on established formulas. Other formulas apply to the support of school districts and special fire districts.

In the Tug Hill region, the largest proportion of the total municipal budget — normally 50% to 70% — goes to highways, particularly snow removal.

There is a wide variation among the towns in additional activities being supported and the degree of support. Expenditures for social services, health, public safety, sanitation, libraries and recreation generally vary from 0% to 3% of town budgets. Some towns have special district expenses for water supply, solid waste disposal and lighting. Most spend 1% to 4% of their budget for the fire district.<sup>91</sup>

There are opportunities to consolidate some services and thereby lower total costs. If this is to be done, however, it may require cooperation in spreading property tax income.

**Property Taxation.** As in most areas around the state, there are a number of disparities among Tug Hill towns in the way they tax various land use categories. For instance, some towns have approaches to assessment that tend to encourage speculation or discourage holding land for long term timber growth.

Contrary to what some people expected, non-residents and residents were found to be taxed the same in most towns.<sup>92</sup> Because of the complexity of this subject, no specific recommendations are being made at this time. Rather, the Commission proposes that taxation be considered in depth and the tax system be improved as part of joint planning efforts by towns in the region.

**Effect of Development on Taxation.** The Tug Hill region continues to show a gradual decline of farming and the resulting continuing addition of unused open space. There are two development trends occurring which are resulting in a net increase in structures in the region. The first of these is the building of year-round homes in the southern section of Tug Hill, which is becoming a "bedroom" community for the cities of Syracuse, Rome and Utica. The second concerns the rest of the region and is the steady growth in the number of leisure homes, usually as small camps or trailers. The study entitled, *The Economic Impact of Second Homes on a Rural Area*,<sup>9 3</sup> describes how the overall impact of a continued gradual addition of leisure homes could have a favorable effect on taxes paid by property owners. For the effect to be positive, development must not require significant additional road maintenance, especially snow-plowing, and major new services such as water and sewage. The cost of services might increase, however, should these leisure homes become year-round residences. In addition, there can be an important effect on the tax bill when speculation and land sales promotion stimulate high priced sales for rural retreats to urban residents. Rising land prices cause changes in equalization rates, resulting in higher school and county taxes in the more rural towns where the per capita income of residents is the lowest in the region. Residents earning a marginal subsistence in these areas, or people owning commercial wood lots, have difficulty meeting higher taxes, and a number of them face loss of their properties.

Because of their low assessment, mobile homes used as permanent residences generally do not carry their own weight in tax revenues. Mobile home development regulations which provide for proper site development can help prevent undue expenses for services provided by towns and villages.

There is a need for further research on the effects of second home and mobile home development on rural governments and landowners, so that planning boards may have better guides in decision making.

**Effect of State Lands on Taxation.** Legislation concerning taxes paid by the state for state owned

land is in disarray. Forest Preserve parcels in Lewis and Oneida Counties pay town, county and school taxes. "Multiple Use" and "Game Management" lands sometimes pay town taxes and sometimes do not. Reforestation areas pay town taxes only. (See Tug Hill Region map to locate state owned parcels.)

For example, in the Town of Montague, Lewis County, nearly 6,000 acres of land, representing 14% of the town's total acreage, are in "Game Management" and "Multiple Use" categories. No taxes are paid on these lands. There are three other towns in the Tug Hill region in Oswego and Jefferson Counties which have the same type lands on which the state does pay taxes. These three other towns are among 14 in the state for which there has been specific legislation in the past designating that taxes would be paid on "Game Management" and similar lands.<sup>9 4</sup>

Further acquisition of large plots of land under the 1972 bond act would reduce tax revenues further for towns which are already poor. Where acquisition is considered the only way to protect certain lands from future development, purchase of development rights only is an attractive alternative. By purchase of certain rights, lands would stay on the tax rolls and continue in current use. The rights to build certain types of structures would be purchased by the state, but all other property rights would be untouched.

Loss of town taxes is only one of the reasons the citizenry of Tug Hill wish the land to remain in private ownership. The Commission respects this wish, but it must be recognized that this path brings with it the weight of responsibility for stewardship of the land.

**Transportation.** Although more than 3,000 miles of state, county and town roads transect the area, preliminary review of traffic count patterns suggests that most movement occurs around the perimeter, on state roads. Cities and villages contribute to development and maintenance, along with federal, state, county and town governments. Each has its own separate standards and programs, leading to difficulties in coordination. Thus, road and expenditure patterns may develop independently of regional development plans. Since existing road systems establish the accessibility of

the region, and since road maintenance is the dominant cost of town government, roads stand as a critical influence on past, present and future development. In laying the groundwork for future use of the Tug Hill region, the road systems appear to merit the most careful consideration. What seems to be needed is careful integration of existing and planned facilities with prospective land use and development patterns, and with planned systems of trails for snowmobiling, hiking, skiing and cycling.

If roads are to be used more effectively as a planning tool, towns should explore the possibilities of road abandonment, discontinuance of winter maintenance, and adjustment of size and carrying capacities of some roads in order to guide patterns of use and speed of development.<sup>95</sup>

The "scenic roads" proposal based on a New Hampshire law would require that aesthetic values be preserved even though modern engineering standards were set aside.<sup>96</sup> Regulations for roads designated as scenic could be designed to preserve such characteristics as trees, stone walls, road widths, curves and roadside foliage. Designation would result from local initiative — perhaps through a petition by citizens and action by the local governing body.

**Community Services.** Community services, including medical, welfare, housing, law enforcement, schools, libraries, fire protection and solid waste disposal, were reviewed in the report, *Resources of the Tug Hill Region*. Some important points in the report that have influenced Commission recommendation are:

- "Major medical support services generally lie outside the region or along its perimeter. There are difficulties in maintaining local medical support at present levels, and emergency services tend to lose effectiveness because of problems of distance and poor coverage. Increased informal coordination . . . among medical service, social service, and law enforcement agencies operating within the region might result in stronger . . . support."<sup>97</sup>
- "The number of public assistance recipients, including the medically needy in the four Tug

Hill counties, equals or exceeds the state average. There is some indication that physical and economic dependence are exaggerated by the remoteness of much of the Tug Hill region. Lack of transportation is a major obstacle for the poor and elderly in remote areas, particularly in winter."<sup>98</sup>

- "Inadequate housing creates a hardship shared by everyone with less than a moderate income. In the core some residences have no electricity, water, or inside plumbing. It is said that subsidized housing must be concentrated in order to be economical, but Tug Hill's poor are not clustered."<sup>99</sup>
- "Area schools face two major problems — inadequate facilities and high costs. Because economies of scale tend to be great in education, consolidation of school districts has been recommended where growth rates do not promise to support an educational complex of sufficient size."<sup>100</sup>
- "Water, waste treatment and solid waste disposal facilities in the Tug Hill region are generally inadequate to satisfy projected demand or to meet current standards. Comprehensive studies point up the need for planning toward development expected beyond the year 2000, and particularly emphasize integration and intercommunity amalgamation of resources."<sup>101</sup>  
 "Changes in solid waste disposal techniques are actively being considered in the Tug Hill region. One approach currently under study in much of the region would consolidate collection into a few well-placed receiving centers (e.g., four in all of Lewis County), and possibly supplement landfill operations with incineration at each center, at additional cost."<sup>102</sup>

**Utilities.** In addition to the two 765kv lines involved in past and present hearings, a third such line is shown on the New York Power Pool's long range plan map as passing through the town of Osceola in the Tug Hill core.<sup>103</sup> The Commission is opposed to this pathway and is concerned about the density of 765kv lines as they converge to join at the Marcy station (just below the towns of Trenton and Floyd).



## APPENDIX A

### CHAPTER 972 OF 1972, AN ACT CREATING A TEMPORARY STATE COMMISSION ON TUG HILL (AS AMENDED BY CHAPTERS 368 AND 846 OF 1973 AND CHAPTER 807 OF 1974)

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

§1. There is hereby created a Temporary State Commission to be known as the Temporary State Commission on Tug Hill, hereinafter referred to as the Commission, to consist of nine members to be appointed as follows: Three by the governor, three by the temporary president of the senate and three by the speaker of the assembly, and at least one of the appointees of each such officer shall be a resident of the Tug Hill area, which includes, in Jefferson County, the towns of Adams, Champion, Lorraine, Rodman, Rutland, Watertown and Worth; in Lewis County, the towns of Denmark, Harrisburg, Highmarket, Lewis, Leyden, Lowville, Martinsburg, Montague, Osceola, Pinckney, Turin and West Turin; in Oneida County, the towns of Annsville, Ava, Boonville, Camden, Florence, Floyd, Lee, Steuben, Trenton, Vienna and Western; and in Oswego County, the towns of Albion, Amboy, Boylston, Constantia, Hastings, Orwell, Parish, Redfield, West Monroe and Williamstown. The Commission shall choose from among its members a chairman, vice-chairman and secretary. Vacancies in membership of the commission occurring from any cause shall be filled by the officer authorized to make the original appointment of the member whose office becomes vacant.

§2. The Commission shall make a study of Tug Hill which shall include, but not be limited to, the conservation and development of the natural resources of the region, notably, the flora, fauna, scenic beauty and environmental purity; the strengthening of cultural resources, social organizations, economy and general well-being of the rural communities and the development of measures by which the region may draw strength from neighboring areas, but at the same time protecting itself from unplanned population growth. Also studied should be the necessity of strengthening policy regarding management, acquisition and use of public land; the development of controls for highways, public buildings and utilities; the measures to be taken by local governments to assure that the development of private lands is consistent with the long-range plans.

§3. The Commission may employ and at pleasure remove counsel and such other officers and clerical, stenographic or technical assistants as it may require and fix their com-

pensation within the amount available therefor by appropriation. The Commission may sit at any place within the state and hold either public or private hearings. It, and each member thereof, shall have the power to administer oaths, take testimony, subpoena and compel attendance of witnesses and the production of all books, papers, records or documents deemed material or pertinent to any subject within the scope of its studies and investigation and shall generally have, possess and exercise all of the powers of a legislative committee.

§4. The members of such Commission shall receive no compensation for their services but shall be reimbursed for their expenses actually and necessarily incurred in the performance of their duties hereunder within the amount available therefor by appropriation. Notwithstanding any inconsistent provisions of law, general, special or local, no officer or employee of the state or any civil division thereof, shall be deemed to have forfeited or shall forfeit his office or employment by reason of his acceptance of membership on such Commission.

§5. The Commission may request and shall receive from any department, division, office, board, bureau, commission, agency, or instrumentality of the state and from any political subdivision or agency thereof, such assistance and data as will enable it to properly consummate its studies and investigations hereunder.

§6. The Commission may report from time to time and shall make a report of its proceedings and recommendations to the governor and to the legislature on or before the thirty-first day of March, nineteen hundred seventy-four.\*

§7. The Commission may offer from time to time suggestions to the Eastern Ontario-St. Lawrence Commission regarding those portions of the towns of Ellisburg and Henderson in Jefferson County and the towns of Richland and Sandy Creek in Oswego County it may regard as lying within the Tug Hill area but the Eastern Ontario-St. Lawrence Commission need not adopt such suggestions in developing its plan for the area under its jurisdiction.

§8. This act shall take effect immediately.

\* Interim reports submitted March 1974 and March 1975. Commission's life was extended by line item in the Executive Budgets for fiscal years 1974-75 and 1975-76.

## APPENDIX B

### PROPOSED STANDARDS AND REGULATIONS FOR "UNIQUE STREAM AREAS" (RECOMMENDED FOR THE 250-FOOT STRIP EITHER SIDE OF THE STREAM AREAS DESCRIBED IN COMMISSION RECOMMENDATION NUMBER 15)

#### Standards

1. **Forest.** The designated unique areas mentioned above should have a required forest management program. However, if an individual wishes to carry out **no activity whatsoever** in the area, that wish should be respected. The following minimum standards are proposed:

- a. Keep roads back from streams, ponds and marshes. Set roads back 100 feet on slopes less than 30%, and 150 feet for steeper ones unless it is necessary to bridge the stream for access to a cutting area. **No regulation of existing roads and bridges is recommended.**
- b. Use temporary culverts, bridges or runways where stream bottoms or banks would be otherwise damaged, and remove them after use.
- c. On steep slopes set back roads and skid trails at least 150 feet from streams, ponds and marshes. Foot trails may be permitted following good landscape practice.
- d. Winch logs off steep slopes where possible and minimize the number of skid trails and the amount of skidder traffic.
- e. Log steep slopes during dry weather when soils are dry, or log when the ground is frozen and snow covered.
- f. After logging, regrade roads and primary skid trails and install diversion devices as needed.
- g. In no event will more than 50% of the basal area be cut in any 10-year cutting cycle unless there is a serious infestation or disease prevalent, or unless a storm damages in excess of 50% basal area.
- h. Remove any logging debris that gets into the water so stream flow is not affected.
- i. If landings are necessary within this area, put landings behind a hill, bank or land form that hides them from the stream, or set landings back into the woods as far as practical (use a setback of at least 200 feet whenever possible).
- j. Clear landings after use. Where needed, seed landings, ditches and any road built for the operation.
- k. Provide ways to divert running water off roads and primary skid trails when slopes exceed 10% (figure out where streams of water will run off during a rain or

snow melt, and put in diversion devices to channel surface water off the road or trail).

l. Do not skid along any stream channel (a good rule for intermittent streams, too).

m. Do not use chemicals for releasing, thinning or culling trees.

2. **Agriculture.** Normal agricultural practices should continue as present in designated areas except for the following, which are considered to be detrimental to stream environments:

- a. Feedlots\* within the 250-foot strip.
- b. Application of fertilizer and pesticides within 100 feet of the river bank or gorge edge.

3. **Development Standards.** The designated use areas should have the following minimum kinds of protection relative to the future development of the area:

- a. Mining operations (i.e., sand and gravel excavations) are to be prohibited inside the 250-foot strip.
- b. With respect to development along these "unique" streams,

(1) No more than five principal buildings\*\* will be permitted per linear mile of river, except in incorporated villages where less restriction may be needed.

(2) All buildings must be set back 200 feet from the river bank or edge of the gorge (whichever is greater).

(3) No multiple family dwellings, commercial structures, hotels, motels or tourist accommodations will be permitted inside the 250-foot strip.

c. Utility corridors must be located outside the 250-foot strip.

d. No new public or private roads will be permitted inside the 250-foot strip, except private driveways to each principal building.

\*The Environmental Protection Agency has defined feedlot as 1,000 head of livestock confined within two acres.

\*\*Definition — principal building includes single family dwellings or mobile homes for permanent or seasonal use.

e. Public open space recreation, such as hiking and snowmobiling, is not encouraged on private lands along these "unique" streams.

f. These regulations should not apply to structures in place prior to the adoption of laws or regulations establishing these standards.

#### Minimum Forest Program Practices

Forests in the 250-foot strip along unique stream areas should be managed under sound forestry principles of uneven-aged management. Management plans should include harvesting commercially valuable products, plus forest improvement measures through releasing, thinning and cull removal. The goal should be to maintain cover of healthy, vigorous forest stands in these riverside areas.

All operations, whether commercial or non-commercial, should be aimed at the improvement of the aesthetics of the unique area. Proper forest management will enhance these values by providing more room for the residual trees. This will result in better growth, and create healthy, thrifty trees which will increase the multiple use values desired and required on unique sites. An occasional over-mature cull tree should be left for wildlife use, as well as to improve the aesthetic and scenic beauty of which large, majestic trees contribute. There are many instances where large cull trees are used as dens for wildlife, and for living areas for bees. The establishment in logging practice of leaving these trees alone can contribute greatly to better workings of the forest wildlife system.

In general, the following guidelines are recommended as woodland improvement practices:

1. **Releasing.** The competing growth must be removed in accordance with a qualified forester's recommendation and in such a manner as to permit the free growth of an average of 400 or more desirable trees per acre.

The elimination of overtopping and competing trees in young, natural or planted, seedling/sapling sized stands of conifers or hardwoods to stimulate the growth and development of the forest stand is desirable.

2. **Thinning.** Thinning must be done in accordance with a forester's recommendations — which will be dependent upon the age and condition of the stand to be thinned; however, an average of 200 or more desirable and well-distributed trees per acre must be left for future harvest.

The elimination of sufficient trees in crowded, pole-sized stands of conifers or hardwoods so that growth of well-spaced, desired trees will be more rapid, is a desirable practice.

3. **Cull Removal.** The elimination of trees, usually of sawlog size and unmerchantable because of inferior quality, is recommended to improve the composition and vigor of the stand as well as to establish conditions for desired reproduction.

The trees to be eliminated will be designated by the forester. Felling may be used, or a double saw cut girdling four inches between cuts.

4. **Stabilizing Forest Roads.** Install erosion control measures on existing logging roads and trails where the terrain and soils are of a character conducive to serious erosion and gullying.

These control measures provide for the placement of structures in or adjacent to roads or trails to divert surface water from the existing channels and spread it in the woods before it gains sufficient velocity and volume to carry much sediment with it, thus reducing soil loss and the silting of streambeds.

The installation of erosion control measures on existing logging roads and trails must be in accordance with the specifications and plans which will be developed by the forester for each project. The control measures used may consist of water bars, check dams, diversion ditches, closed or open tip culverts and such other measures as are determined to be necessary to provide adequate control.

#### 5. Other Provisions.

a. Fencing will be required in all cases where, in the opinion of the consulting forester, it is necessary for the protection of the woodland which is to be improved.

b. Improvement measures should be carried out in such a manner as to preserve the quality of the environment, especially wildlife habitat and the appearance of the area.

6. **Wildlife.** The forest management programs mentioned above should fully comprehend wildlife management. There is need to address directly positive and negative effects of beaver. Until more is known about the effects of beaver activity, it is recommended that destruction of active beaver habitats be discouraged.

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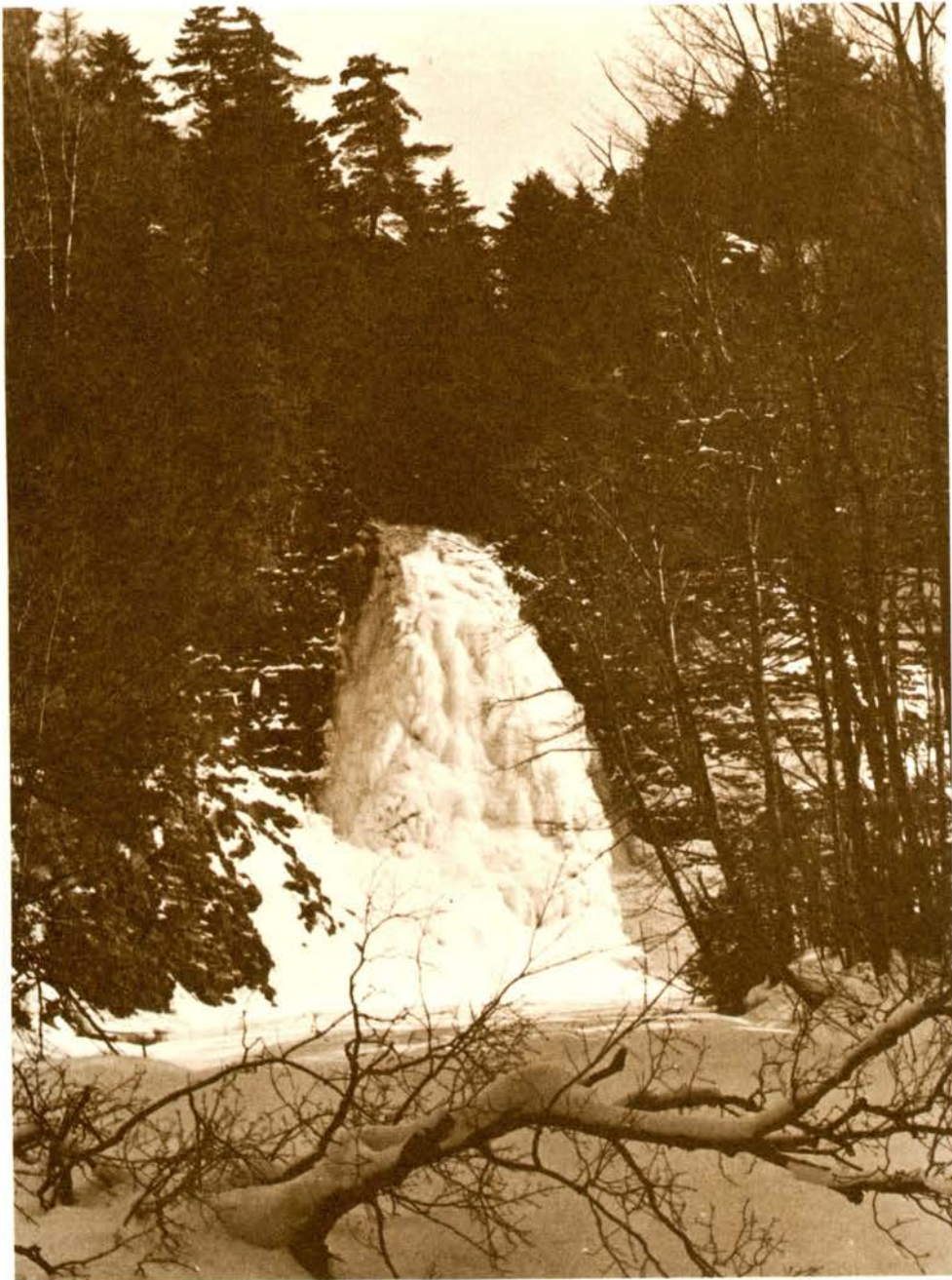
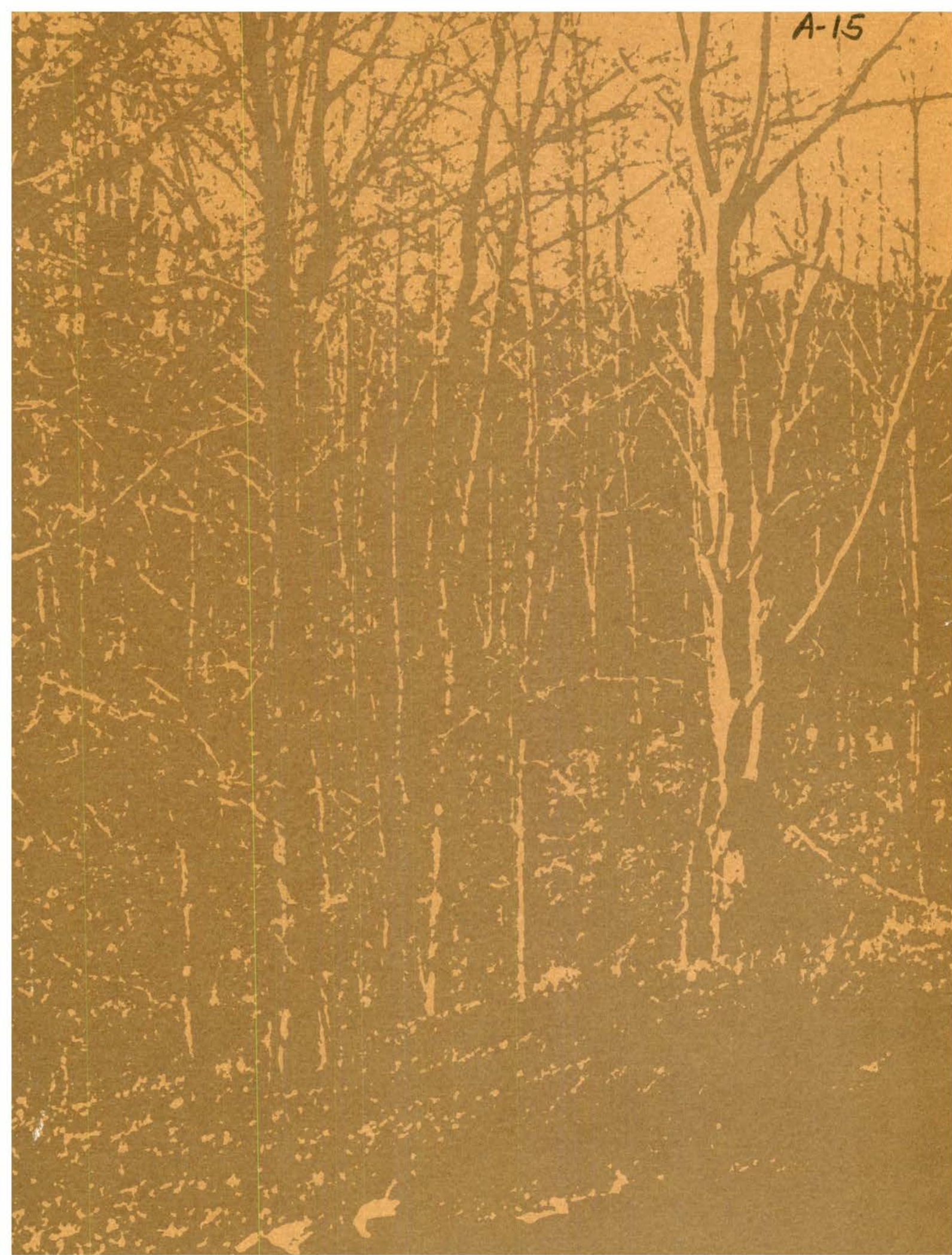
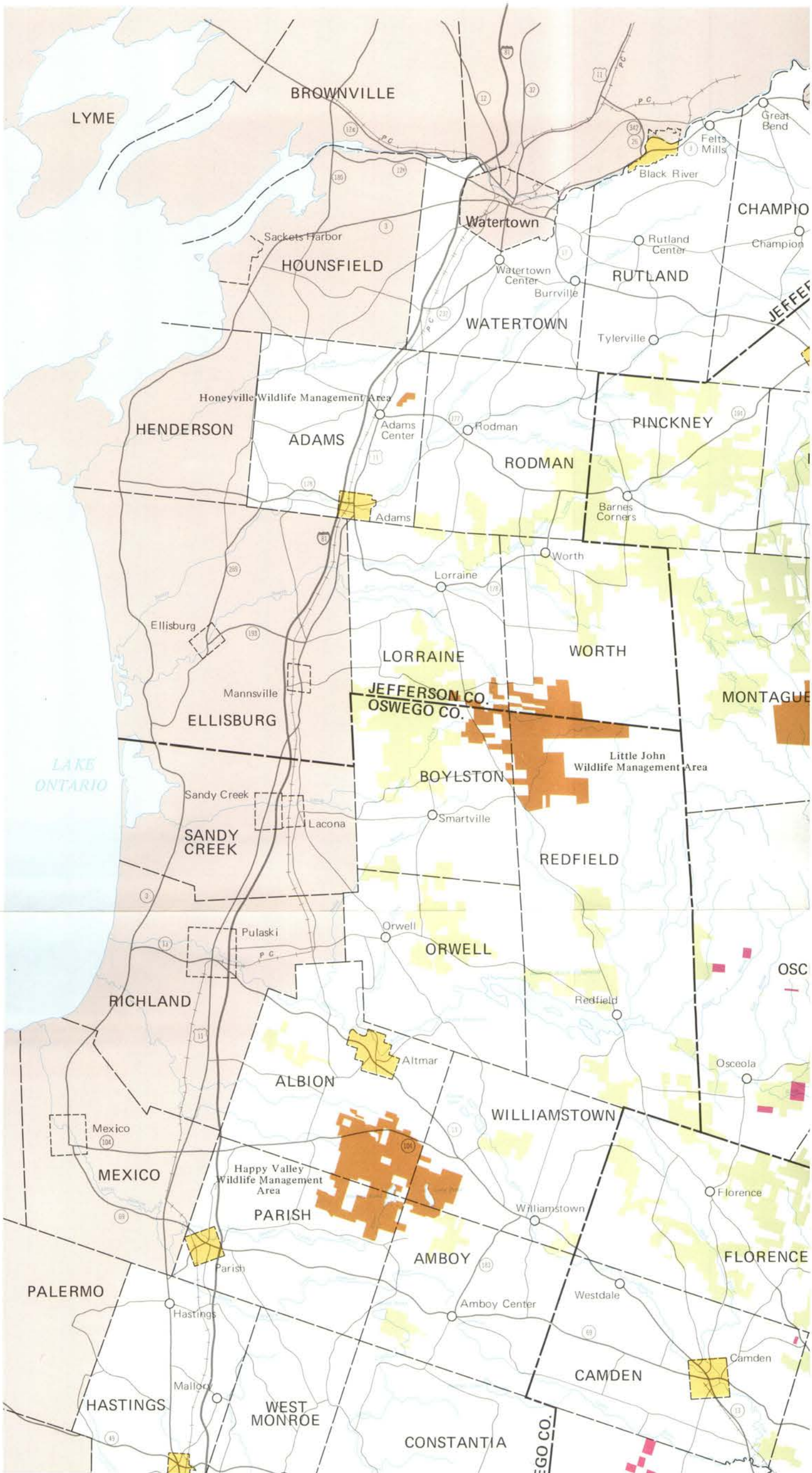


Photo by Peter J. Jerome.

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# Tug Hill Region

Presented January 1976 to the Governor and Legislature of the State of New York  
by the  
Temporary State Commission on Tug Hill

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|-----------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------|----------------------------|
|  | State Reforestation   |  | State Game Management Area |
|  | State Forest Preserve |  | State Park                 |

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