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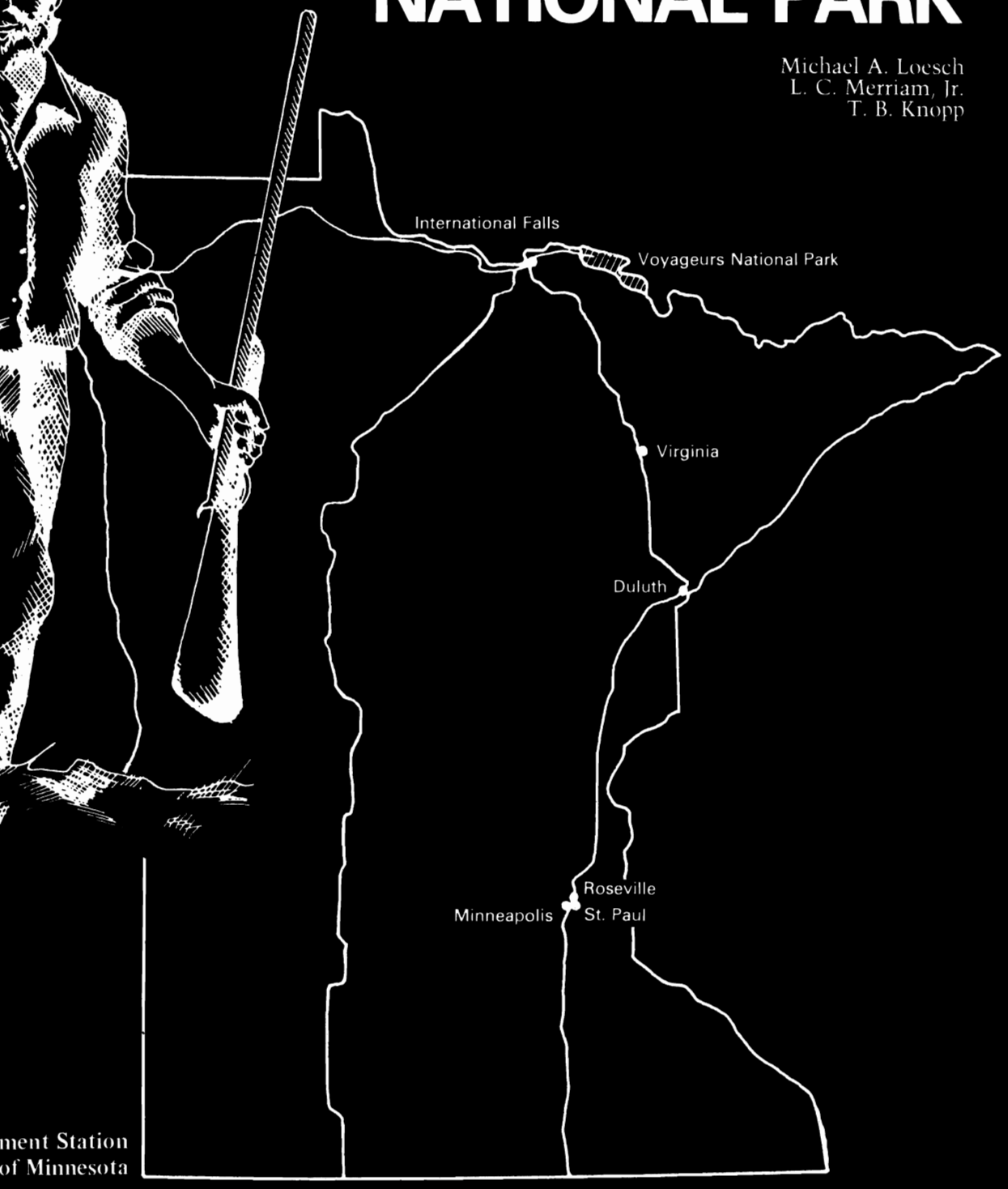

Agricultural Experiment Station
University of Minnesota

THE OPINIONS OF MINNESOTA RESIDENTS TOWARD VOYAGEURS NATIONAL PARK

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Preface

This study is primarily the work of the senior author, with the assistance of two junior authors. However, several other individuals were involved, and the authors would like to take this opportunity to thank them. Dr. Phillip Tichenor reviewed the manuscript and offered valuable comments. Dr. C. E. Ramsey, formerly a Professor of Sociology at the University of Minnesota, and now at the University of Texas, aided in the formulation of the problem and the design of the instrument. Christine A. Rose from the College of Forestry was one of the two field workers who conducted the interviews in the four sample communities. Mrs. Savard from the Koochiching County Historical Museum aided in the historical analysis.

Dean R. A. Skok and Department Head A. C. Mace, Jr. made available funds and college resources. The University of Minnesota Computer Center made available grants for the data analysis conducted for the study. We also thank the Cooperative States Research Service, United States Department of Agriculture and Keith Huston, Director of the Agricultural Experiment Station for the McIntire-Stennis Cooperative Forestry Research funds for the project and this publication.

A special thank you goes to the 400 respondents who so graciously consented to be interviewed for the study. Studies such as this one are possible only when there is an interested public who is willing to become involved.

Summary and Implications

The establishment of Voyageurs National Park is the outcome of a long-running conflict between preservationists and developers that has spanned a period of almost 90 years. This strong historical component provides substantial insight into the interpretation of present behavior as well as what may occur during the future.

The behavior exhibited by citizens involved with the park issue (both opponents and proponents) appears to correspond quite closely with the park's stage of development. Behavior has passed through three distinct phases which might be called the Competitive phase, the Legal phase, and the Institutional Involvement phase. The Competitive phase occurred during the 1891 park proposal as well as during the 1930-50 proposal and the 1960's proposal.

The Legal phase corresponded to the period of time between legislative authorization and official establishment of the park. During this phase park opponents attempted to block establishment of the park through legal action. The Institutional Involvement phase corresponds to the period after the park was officially established on April 8, 1975. This phase began with a lot of political and legal maneuvering over the Park Service's authority to set regulations such as those for duck hunting in Black Bay.

The present situation (1977) is dominated by the pressure being brought on Park Service personnel by local groups and their political allies. These groups are seeking management prescriptions which are not consistent with traditional National Park Service management policies (such as duck hunting in Black Bay). Constant pressure on managers by local special interests threatens to antagonize managers and make them insensitive and unresponsive to the public.

The impacts of Voyageurs National Park are numerous and vary greatly from one sample commu-

nity to the next. Local residents in International Falls believe that the park will affect jobs, personal economic security, the economic well-being of the community, leisure patterns and general life style, and regional prosperity through local control and autonomy. Virginia respondents view the park as affecting recreational use of the park area and the prosperity of the region. Duluth and Roseville respondents believe that the park will be beneficial to the general prosperity of northern Minnesota, however, they do not believe that the park will affect them personally.

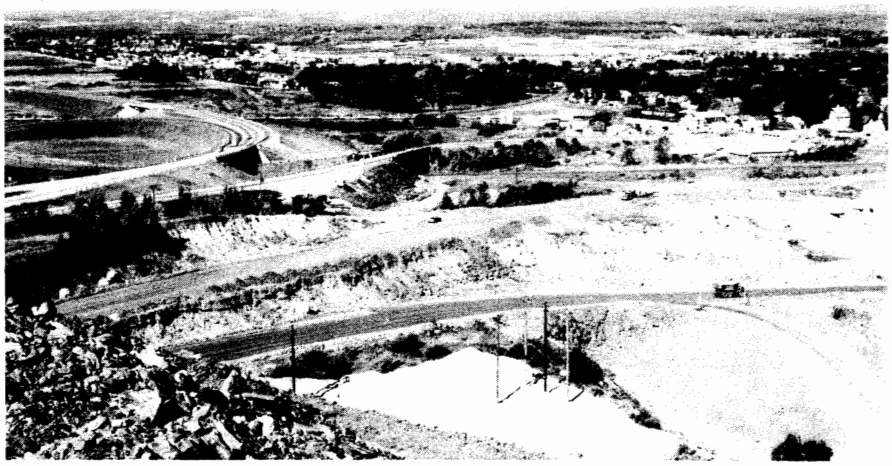
As respondents live in communities located farther away from the park they generally believe that both the number and magnitude of direct local impacts resulting from the park decrease.

Voyageurs National Park will bring significant social change to International Falls. Therefore, it will be important to involve the public before decisions are made by park managers and to assess impacts of proposed actions upon the community.

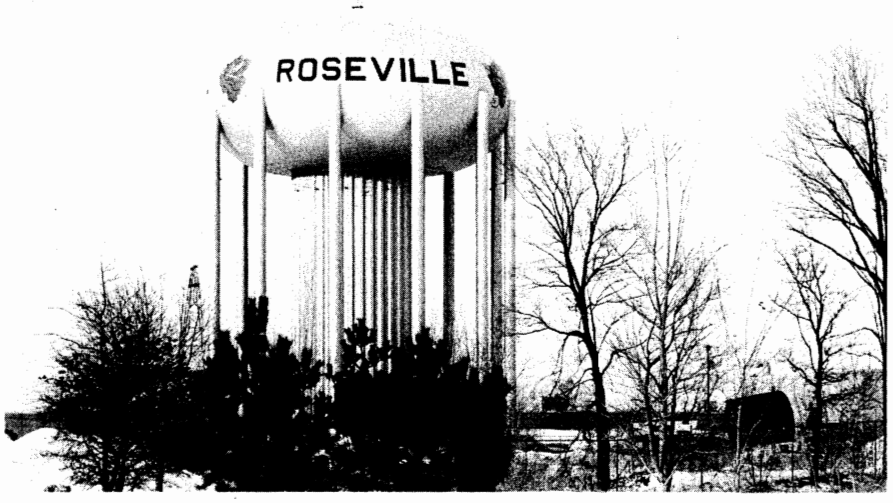
Respondents from International Falls and Virginia are much more likely to be aware of the park than are respondents from communities located farther away from the park. As things stood in 1975, generally only local residents had a significant amount of factual information on the park. This study has indicated that their attitudes are very different from the majority of Minnesota residents interviewed. In order for large segments of the urban Minnesota public to become familiar with the park, basic information must be disseminated to them.

Results from this study indicate the number of Minnesota park users may be much larger than previous estimates (Lorimer-Chiodo, 1972). Lorimer-Chiodo, in a study for the Park Service, estimated that 30 percent of all park visitors (300,000 visits) will be Minnesotans. In contrast, we found that prior to 1975, day use of the area alone was very substantial — possibly as high as 250,000 visits per year. Approximately the

International Falls—12 miles west of Voyageurs National Park, residence of ¼ of the study's interviewees and the study community most affected by the creation of the Park.



Virginia, one of the sample communities, located in the Iron Range.



Roseville, suburb of Minneapolis-St. Paul and representative of the Twin Cities Metropolitan Area in socio-economic characteristics, was one of the communities where study respondents were interviewed.

same proportion of local respondents plan to use the park in the future as used it during the past. In addition, a 100 percent increase in Duluth visitation and a 150 percent increase in metro area visitation is possible. Park visitation by Minnesota residents may approach one million annual visits depending upon the frequency of visitation.

If Park Service and Lorimer-Chiodo and Associates estimates of out-of-state visitation are correct, there will be many more visitors to the park than current projections indicate. This suggests that a second look should be taken at facility development plans for day users.

Local respondents in the communities of International Falls and Virginia have engaged heavily in motorized activities (power boating and snowmobiling) which provide quick and easy access to various parts of the park. In contrast, respondents from the larger metropolitan areas of Duluth and Roseville have pursued primitive experiences that can be gained from nonmotorized activities such as canoeing, snowshoeing, hiking, etc. These two types of experiences tend to be mutually exclusive in a given area. As park visitation increases and the percentage of nonlocals increases, user conflicts are likely to increase substantially because of the basic incompatibility of motorized and low-consumptive activities. A situation roughly analogous to the Boundary Waters Canoe Area canoe-motorboat-skier-snowmobiler conflicts may result. This situation would most likely necessitate additional restrictions on motorized activities.

As respondents lived in communities located farther away from the park, they tended to have more favorable opinions of the park than those who lived closer. Analysis indicates that the pattern of respondents is the result of a complex play of several factors. First, respondents living in communities located farther from the park had more favorable opinions because there were fewer perceived direct impacts from the park. Secondly, the impacts that did occur were perceived to be of a lesser magnitude. In addition, urban residents may have a higher perceived need for opportunities provided by a national park. These findings can be expressed in the following generalizations:

1. Formation of attitudes toward the park is strongly influenced by both the number and magnitude of perceived direct impacts that a park has upon the individual, his family, or community.
2. Some respondents living closer to the park tend to have a less favorable opinion than those living farther away because the park brings a greater disruption of existing life patterns (i.e., leisure life style). Others may feel the park reduces their leisure life style options.
3. In situations where respondents do not perceive the park as having a direct impact upon them, attitudes toward the park are formed from a broad set of societal environmental values and perceived personal needs.

Duluth, Minnesota's northern city on Lake Superior and place of residence for one portion of the study respondent sample.

Introduction

Voyageurs National Park is Minnesota's only national park. Its establishment on April 8, 1975 opened up an excellent opportunity to study a new area, its management, and its clientele from inception. This study seeks to identify and evaluate the impacts of Voyageurs National Park upon the residents of selected Minnesota communities and to identify the factors that significantly contribute to the attitudes toward the park. The study addresses the following questions: (1) How do the history of the the region and the previous attempts to establish a national preserve in the area of Voyageurs relate to the present situation? (2) What are the impacts of Voyageurs National Park upon the

residents of selected Minnesota Communities, and how do they relate to an individual's place of residence? (3) What are the attitudes of residents in selected Minnesota communities toward Voyageurs National Park, and how do these attitudes relate to an individual's place of residence? (4) Which factors account for a significant percentage of variance in expressed attitude toward the park and how do these factors relate to an individual's place of residence?

The park lies in the Rainy Lake watershed of Minnesota and Ontario. This area is part of the northern Minnesota National Outdoor Recreation Corridor which extends from Isle Royale National Park on the east to Lake of the Woods on the west. The northern boundary of the park coincides with the United States-Canadian border for more than 50 miles in northern Minnesota (figure 1).

The park area encompasses approximately 219,000 acres, of which about 80,000 acres are water. The main body of the park is the Kabetogama peninsula which contains about 104,000 acres. The park is 39 miles long and has a maximum north-south width of 14 miles. Immediately to the east of the park lies the 1,000,000 acre Boundary Waters Canoe Area, a part of the Superior National Forest.

Primary access to the region is provided by highways 53, 71, and 11 (figure 2). The nearest population center to the park area is the International Falls, Minnesota-Fort Frances, Ontario area located 11 miles west of the park boundary. Approximately 25,000 inhabitants reside in these two communities. There is a high concentration of lodging facilities in the Kabetogama-Ask River area on the southern edge of the park.

Interview data for the field survey portion of the study was obtained during the summer of 1975 from a random sample of households located in the towns of International Falls, Virginia, Duluth, and Roseville.

International Falls is a community of about 8,500 residents (including South International

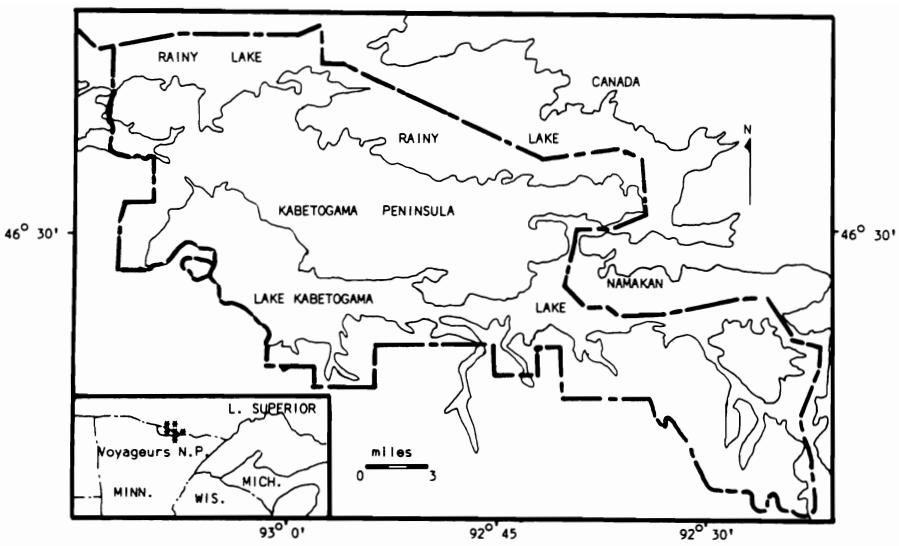


Figure 1. Voyageurs National Park—General Park and vicinity map.

Figure 2. Location of sample communities and major access routes.

Hiking trail near Lost Bay for access into the Kabetogama Peninsula. The forest was logged in the past—Voyageurs National Park.

Falls) which depends primarily upon forest products industries for its economic base. Besides being an International Point of Entry, the community is the site of a large paper and insulite mill operated by the Boise Cascade Corporation (the primary employer in the county). The economic, social, political, and recreational impacts of the park will be felt acutely by residents of this community.

The community of Virginia, a 13,000 resident Iron Range community dependent primarily on taconite, is located about 80 miles south of the park and approximately 190 miles north of the Twin Cities metropolitan area. It is located adjacent to highway 53, the only major travel corridor into the park area from the south. Larger than International Falls, Virginia is the only community over 10,000 persons located along highway 53 in the 150 mile stretch from Duluth to Voyageurs National Park. Virginia residents use the park for recreational purposes, particularly hunting (prior to 1975) and fishing.

Duluth is a large metropolitan city of 100,000 people located on the shores of Lake Superior and is the governmental, service, and industrial center of the northern portion of Minnesota. Thousands of eastern U.S. park visitors, who will pass through Duluth, on their way to the park, are expected to provide an economic boost to area businesses (Sielaff, Meyers, Friest 1964; Lorimer-Chiodo and Associates 1972).

Roseville, the final sample point, is one of the northern suburbs of the seven-county metropolitan area. This community of about 34,000 residents has been selected because it was shown to be representative of the Twin Cities metropolitan area (Mills, 1975). The community is primarily a residential area for white collar, professional and clerical people who commute into the central cities to work each day.

Method of Study

Residents in the communities of International Falls, Virginia, Duluth, and Roseville are the focus of this study. A random sample of residents in each community was obtained using a telephone directory as a source list. Ninety-eight respondents were interviewed in International Falls and Virginia and 102 respondents were interviewed in Duluth and Roseville (total of 400 interviews). Interviews were conducted in the homes of respondents without prior appointment (before initial contact). Interviews, utilizing an 11 page questionnaire, ranged from 20 minutes to approximately 2 hours in duration.

Historical analysis of the park and the previous attempts to establish a reserve in the Voyageurs area are also of interest to this study. Extensive use was made of the University of Minnesota library system and various State of Minnesota agency libraries (i.e., Minnesota Legislative Reference Library and the Minnesota State Archives). Documents held by the Minnesota Historical Society and the Koochiching County Historical Museum were also examined. Microfiche copies of documents in possession of the Natural Resources Branch of the Civil Archives Division of the National Archives in Washington, D. C. were also obtained.

Findings

HISTORY OF REGION AND EARLY ATTEMPTS TO ESTABLISH A PRESERVE

"In 1731 Sieur de la Verendrye dispatched Sieur de la Jameraye with three canoes (from Grand Portage) to proceed to the outlet of Lake Tecamamiouen (Rainy Lake) where they would winter and construct a fort" (Burpee, 1931). The French occupation of the border country left the rich heritage of the Voyageur but had little effect on the land resource because the French did not settle in Minnesota in significant numbers (Kellog, 1925). New France fell to the British in 1763.

During the winter of 1783-84, an agreement was made between the traders under the name of the Northwest Company. This company, from 1780-1803, made the border lakes canoe route famous. However, by the 1850's, the fur trade declined and the voyageur with his birch bark canoe was replaced by steamboats, canals, and railroads. Minnesota became a territory in 1849 and a state in 1858.

Soon after, during the 1860's, the British sought an all-Canadian route of travel to encourage migration to western British America.

British Columbia agreed to enter the Dominion of Canada in 1871 under the condition that a transcontinental railroad be built. "From seven to ten sawmills were required to produce the necessary lumber for stations, warehouses, and homes. The Canadian mills acquired much of the timber by trespass on American territory, particularly from public domain lands in northern Minnesota" (Nute, 1950). This occurred largely because, in contrast to the Canadian side, the Minnesota side of the border was uninhabited, and not open to settlement or timber harvest because it had not been surveyed.

The federal government took ineffective steps to deal with the timber trespass by sending special timber agents into the field. Ultimately, millions of board feet of prime pine timber were stripped from Minnesota lands.

Attempts were made to open large tracts of the land to logging and settlement but the "graft and corruption was so severe that an outraged public demanded an end to the pilfering of Minnesota timber" (Nute, 1950). A number of county and state officials were later implicated in the widespread fraud.

Starting in the late 1880's the Minneapolis Journal,the Minnesota Forestry Association, and other groups mounted a campaign for the creation of a large reserve or park. On April 18, 1891, the Minnesota Legislature passed Joint Resolution 13 which called for the President to establish a Minnesota National Park. The wording and content of the resolution was ambiguous but it appeared to request that a reserve be set aside under the recently passed Forest Reserve Act of 1891. The timber industry fought the proposal and it was subsequently not passed.

Citizen behavior toward the park area has passed through three distinct phases which might be called the Competitive phase, the Legal phase, and the Institutional Involvement phase. The Competitive phase corresponded to the period prior to the passage of the 1971 federal law which authorized the park. During this phase, park proponents and opponents competed with each other to gain the support of the general public, and the major proportion of the activity occurred in the political arena. This kind of competition occurred during the 1891 park proposal as well as during the 1930-50 and the 1960's proposals.

Gold, discovered in the park area in 1893 by George W. Davis, led to the establishment of the boom town, Rainy Lake City, on the western end of the Kabetogama peninsula (within park). The community was incorporated on May 17, 1894. However, it soon declined and the citizens who remained established the community of International Falls.

The region remained very isolated until 1907 when a railroad was built to International Falls. "Up until that time most settlers came by way of the Canadian Pacific Railroad via Port Arthur or Winnipeg" (Hinckley, 1953). Good highways were not built into the area until the late 1920's and the early 1930's. E. W. Backus and W. F. Brooks reorganized the Koochiching Company (a townsite development firm which sought to develop International Falls around the area's water power potential) and became the developers of the region.

In 1925 E. W. Backus made a proposal to the International Joint Commission (IJC) to harness the remainder of the Rainy Lake watershed (dams had already been built at International Falls and Kettle Falls as well as several in Canada) for hydroelectric power. The plan proposed the construction, at government expense, of a series of dams controlling the remaining border lakes and converting them into a series of four main storage basins. The IJC made its final report, with recommendations being made against the project, on May 1, 1934 (Bloomfeld and Fitzgerald, 1958).

A citizen's organization, called the Quetico-Superior Council, was formed in 1927 in response to the Backus proposal to promote the preservation of the area through scientific forest management. From 1929-1952 this organization, as well as others, pressed for the creation of an "International Peace Park" to commemorate the Americans and Canadians who had died in the First World War and later the Second World War. The proposal called for an area with characteristics of both a national forest and a national park. The Peace Park was never created—probably because of the ambiguity of the proposal.

In 1961, after a visit to the Kabetogama area at the request of the State of Minnesota, the Assistant Director of the National Park Service and its Midwest Region Chief agreed with the implications of a 1959 study stating that the area could possess national park qualities.

During the summer of 1962, after a highly publicized visit to the area by high level Park Service and Minnesota officials, several field

studies were made jointly by the State, the Forest Service, and the Park Service. Additional studies were made in 1963 and a preliminary report titled "Proposed Voyageurs National Park", was released in 1964. The report recommended that a national park be created in the area where Voyageurs is now located.

Studies, informational meetings, and public hearings were conducted during the years that followed. In July of 1968, the Minnesota congressional delegation, headed by 8th District Respresentative John Blatnik and Senator Mondale, backed the introduction of a bill to the 90th Congress. However, Congress adjourned before action was taken.

House of Representatives Bill No. 10482 was introduced on April 23, 1969 to the next session of Congress and several federal hearings were held. On December 29, 1970 the United States House of Representatives concurred with the Senate and passed an amended version of H. R. 10482. The bill was signed into law by President Nixon on January 8, 1971. This Act authorized the park and opened the legal phase of behavior toward the area. Opponents of the park started a lawsuit over the constitutionality of transferring State Trust Fund Land to the federal government. Eventually, the suit went to the U.S. Supreme Court which supported the decision of a lower court. The State of Minnesota was permitted to transfer title to the School Trust Fund lands, and this transaction was completed in October of 1974. The park was officially established by publication of notice in the Federal Register by Secretary of Interior Morton on April 8, 1975.

The Institutional Involvement phase of behavior toward the park began after the park was officially established. During this period organizations (proponents and some opponents) sought inclusion into the institutional framework of the managing agency by becoming members of citizen's advisory groups. In this way they hoped to bring about policies that are favorable to their interests.

During June of 1975 public hearings were held on the Voyageurs Park Draft Master Plan at International Falls, Orr, Virginia, Duluth, and Minneapolis. After the hearings, Park Service personnel began negotiations with private land owners (for the transferral of land to the agency) and started to develop management policies for the park.

A test court case was brought by local hunters challenging Park Service authority to regulate duck hunting in the Black Bay area of the park. The Minnesota Department of Natural Resources entered the case as a friend of the court supporting the position of the hunters. U.S. District Court Judge Miles Lord upheld the right of the Park Service to prohibit hunting on the waters of the park. The present situation (in the late 1970's) is dominated by pressure being brought on Park Service personnel by local groups and their political allies to open the park to uses not consistent with traditional National Park policy and to delete areas from the park.

The harassment of Park Service personnel by locals can be expected to continue because of the strong tradition of resource consumption prevalent among many residents. The area in which the park is located was one of the last frontiers in the United States, with much of the area being opened to settlement after 1905. The concept of preservation through nonconsumption is an unfamiliar concept to many of these residents. Since many of the area's older adults are the children of the region's original settlers, the frontier ethic of resource exploitation and consumption is still strongly held by many residents.

AWARENESS AND INTEREST IN THE PARK

Respondents in International Falls and Virginia had a much broader grasp of the facts surrounding the park issue than did respondents in sample communities located farther from the park. Seventy-six percent of all International Falls respondents and 70 percent of all Virginia respondents were able to recall at least one fact concerning the park. In contrast, 45 percent of all Duluth and only 35 percent of all Roseville respondents were able to do so.

Awareness of the park as an issue was not related to the marital status, the number of children, or the level of educational achievement of the respondents. However, we found that older respondents were more likely to indicate that they had heard of the park during the past year (prior to 1975). The youngest group of respondents interviewed, 18 to 20 years olds, were least aware of the park.

A sizeable percentage of International Falls respondents attended the 1969 park proposal hearings (15 percent) and the 1975 Draft Master Plan hearings (8 percent). Participation decreased rapidly outside of the area immediately adjacent to the park. Approximately 3 percent to 4 percent of the Virginia respondents participated in the hearing process. None of the Duluth or Roseville respondents had attended the hearings. Many residents who participated in the hearing process believed that they had little input into planning. These respondents felt that the National Park service had decided upon a course of action prior to the hearings.

THE PERCEIVED ECONOMIC IMPACT OF THE PARK

Nearly 16 percent of the International Falls and 7 percent of the Virginia respondents had some sort of property ownership right either inside of the park or in the area immediately adjacent to it. Forty-six percent of the International Falls respondents, 35 percent of the Virginia, and 21 percent of the Duluth respondents said that property values within their respective communities would appreciate because of the establishment of the park.

Respondents in the northern Minnesota communities (International Falls, Virginia, and Duluth) clearly tended to underestimate the economic impact of tourism on their incomes. Only about 3 percent of the respondents in each of these communities (ranged

from 3 percent to 5 percent) stated that tourism was responsible for a portion of their incomes. Similarly, 78 percent of the International Falls and Virginia respondents indicated that Voyageurs Park would have no effect upon their personal incomes (another 10 percent were uncertain). Eighty-five percent of the Duluth respondents said that the park would have no effect.

The perceptions of respondents concerning the impact upon the prosperity of northern Minnesota varied widely from one community to the next. As respondents lived farther away from the park, a higher percentage stated that the park would do more good than harm (ranged from 49 percent in International Falls to 55 percent in Virginia and from 68 percent in Duluth to 77 percent in Roseville).

RECREATIONAL USE OF THE PARK AREA

Thirty-six percent of all respondents used the park area for recreational purposes. As the sample community was located farther from the park the percentage of users decreased significantly. Nearly two-thirds of the International Falls Falls sample respondents and 42 percent of Virginia respondents used the park area for recreation as compared with 25 percent of the Duluth and 15 percent of the Roseville respondents.

The frequency of visitation dropped off rapidly as the sample community was located farther away from the park. Nearly 70 percent of the International Falls respondents who used the park made nine or more trips into the area in an average year. More than one-fourth of the users made more than 25 trips a year into the area. Twenty-two percent of the Virginia respondents who used the area made nine or more trips a year (average of 6.41 trips annually). In contrast, 60 percent of the Duluth respondents who used the park made 2 to 8 trips a year and no one made nine or more trips (an average of 2.28 trips annually). Use

The Kabetogama Peninsula and Rainy Lake from the air showing the forest cover and general terrain of the Voyageurs National Park.

dropped to its lowest point in Roseville where 80 percent of the respondents who used the area made one or less trips per year.

Generally park area users from the International Falls sample were male (56 percent of all users) and 54 years of age or younger (42 percent of all users). Non-users were typically female (74 percent of all nonusers) and 55 years of age or older (41 percent of all non-users).

Use of the Voyageurs area by Virginia respondents was related to their sex and employment status. Nearly 73 percent of all Virginia park area users were male. The typical non-user was a female homemaker (26 percent of all non-users).

Use of the park by Duluth residents was related to whether they had lived in Duluth for their entire lives. Almost 70 percent of all respondents who used the park area were Duluth natives.

Typical users or non-users from Roseville could not be characterized because none of the socio-economic variables used in the study were significantly related to recreational use of the park area.

RECREATIONAL ACTIVITY PARTICIPATION BY RESPONDENTS

Fishing was by far the most often mentioned of the 19 activities respondents participated in while using the park area (84 percent of all park area users). Respondents from International Falls and Virginia participated more heavily in extra activities (hunting and trapping) than did respondents from the larger urban areas located farther away from the park. Forty-five percent of all International Falls, and 22 percent of all Virginia park area users hunted as compared with only 8 percent of the Duluth and 0 percent of the Roseville respondents (see table 1).

A larger percentage of respondents from communities located farther from the park participated in nonconsumptive activites such as hiking, snowshoeing, canoeing, and camping. The percentage of respondents who camped increased from 19 percent in International Falls to 32 percent in Virginia, and from 44 percent in Duluth to 53 percent at Roseville. International Falls respondents were primarily day users whereas respondents from other communities tended to camp at least one evening. Similarly, none of the International Falls respondents canoed in the park area. The percentage then increased from 10 percent in Virginia to 16 percent in Duluth and 20 percent in the Roseville sample.

Table 1. Activities Respondents Participated in While Visiting the Voyageurs Park Area Prior to 1975 (values in percent)

	Sample Community				
Activity	Int. Falls:	Virginia:	Duluth:	Roseville:	Total
Fishing[1]	86	90	76	73	84%
Hunting	45	22	8	0	23%
Trapping	6	0	0	0	3%
Camping[2]	19	32	44	53	30%
Canoeing	0	10	16	20	8%
Motor Boating[3]	34	17	12	7	23%
Snowmobiling	25	20	0	0	17%

[1]Fishing, hunting, and trapping are classified as extractive type activities.
[2]Camping and canoeing are classified as nonconsumptive-active type activities.
[3]Motor boating and snowmobiling are classified as motorized activities.

Respondents from the International Falls and Virginia samples participated heavily in motorized activites (such as snowmobiling and power boating), whereas a much smaller percentage of Duluth and Roseville respondents participated in these activites. Thirty-four percent of the International Falls and 17 percent of the Virginia respondents power boated as compared with 12 percent of the Duluth and 7 percent of the Roseville users. Similarly, one-fourth of the International Falls and 20 percent of the Virginia park area users snowmobiled as compared with none of the Duluth or Roseville respondents.

Respondents from the larger urban communities located farther from the park appeared to be seeking a different type of recreational experience than were local respondents. Duluth and Roseville respondents pursued a primitive type of experience that could be gained from activities such as camping and canoeing. International Falls and Virginia users, in contrast, participated heavily in consumptive and motorized activites that provided quick and easy access to various parts of the area.

Prohibiting hunting and trapping and the close regulation of motorized activities by Park Service personnel has altered traditional use of the park area by some local residents. These restrictions had only a minor impact on Duluth respondents and virtually no direct impact upon Twin City respondents.

PLANS FOR FUTURE VISITATION TO THE PARK

One-half of all respondents indicated that they plan to visit the park, 17 percent stated that they did not plan on visiting the park, and 33 percent were uncertain. Approximately the same percentage of International Falls respondents who used the park area in the past for recreational purposes plan to visit the park during the future (63 percent). In each of the other three samples, a larger percentage of respondents indicated that they plan to visit the park in the future. A large increase was projected for Duluth where 51 percent of all respondents indicated that they planned to visit the park (an increase of 100 percent). The increase was nearly 150 percent (35 percent of sample) for the Roseville sample.

If all of the respondents (or even a majority) do actually visit

the park, there will be thousands of additional visitors. There may be as many as one-half million additional users from the Twin Cities metropolitan area and the Arrowhead

REGION OF MINNESOTA

The types of respondents who planned to visit the park in the future changed from those who used the area in the past in the communities of International Falls and Virginia. Past park area users from International Falls who were uncertain (21 percent) or did not plan on visiting the park (16 percent) were primarily replaced by the largest single group of past non-users. Seventy-nine percent of these respondents were females, of which 53 percent were over the age of 55 years. With 93 percent of this group being either married or widowed, this may signal a shift toward more family and group use of the park area.

A similar comparison conducted on the Virginia sample indicated a shift in usage from those who had used the area in the past. Fifty-seven percent of those respondents who hunted or boated in the past did not plan to visit the park in the future. Nearly 46 percent of those who planned on visiting the area in the future were females as compared with 27 percent of those respondents who used the area in the past.

Three things are occurring which will continue to shift recreational usage of the park over time. First, the preservation orientation of the National Park Service discourages consumptive and motorized activities. Use will shift toward activities such as hiking, cross-country skiing, camping, sight-seeing, and canoeing.

Second, a tremendous influx of visitors from large urban areas such as Duluth and the Twin Cities is likely to occur. The sheer magnitude of this influx will mean that local users will become a minority.

Third, a change in the composition of local users will further shift usage of the park. A number of former local users who participated primarily in consumptive and motorized activities do not plan to visit the park or are uncertain. These three factors will shift usage more toward friendship groups and the family unit and activities which are characteristically performed in such groupings.

As non-local visitation (with its preference for nonconsumptive and nonmotorized activities) increases it is very likely that user conflicts will increase. Conflicts similar to the Boundary Waters Canoe Area motorboat-canoeist and cross-country skier-snowmobiler conflicts are likely to occur because of the incompatibility of motorized and nonmotorized activities in a given area. As use increases, the number of motorized-nonmotorized contacts will increase and the level of conflict will also increase. Such conflicts will probably necessitate additional restrictions on motorized activities.

RESPONDENT ATTITUDES TOWARD THE PARK

Respondents in each of the four communities were asked to give their opinions of the Voyageurs National Park at the time of the interview (summer of 1975). Ten percent of the respondents were definitely against the park and 11.5 percent were definitely for it (table 2). However, a much smaller percentage of all respondents were against the park (13 percent) than were for the park (44 percent). Slightly more than one-fifth (22 percent) of all respondents were undecided or neutral concerning the issue.

Respondent opinions of the park varied greatly from one sample community to the next. As respondents lived in communities located farther from the park, there was a much greater likelihood that a positive opinion would be given. Slightly more than 42 percent of the International Falls and 34 percent of the Virginia respondents had an unfavorable opinion, compared with 11 percent of the Duluth and only 4 percent of the Roseville respondents. Similarly, the percentage of respondents who were neutral or uncertain of their opinion decreased from a high of 30 percent in International Falls to a low of approximately 17 percent in Duluth and Roseville.

A similar pattern emerged when respondents were asked to indicate whether they thought the park was a sensitive or touchy issue within their respective communities. Almost 90 percent of the International Falls and 55 percent of the Virginia respondents indicated that the park was a sensitive issue (indicator that the park was a source of community conflict). In contrast, 24 percent of the Duluth and only 4 percent of the Roseville respondents believed it was a sensitive issue.

The testing of the hypothesis on attitudes toward the park indi-

Table 2. Respondent Opinions of Voyageurs National Park (values in percent)

	Opinion of park					
Sample:	Definitely against it:	Against it:	Neutral or uncertain:	For it:	Definitely for it:	Total
Int. Falls	17	25	30	20	8	100 n= 98[1]
Virginia	17	17	24	33	9	100 n= 98
Duluth	4	7	17	58	14	100 n=102
Roseville	1	3	18	63	15	100 n=102
Total	10%	13%	22%	44%	11%	100%
Counts	40	52	88	176	44	N=400

Raw Chi-square = 80.4 with 12 degrees of freedom. P-value = .0001
Cramer's V = .259 Contingency Coefficient = .409 Lambda – .04

[1]n is equal to the number of respondents interviewed in each of the samples.

cated that respondents who had positive opinions of the park tended not to perceive the park as a sensitive issue, whereas those with negative opinions viewed it as sensitive. A very large percent of the respondents who were against the park perceived it as a sensitive issue as compared with only 22 percent respondents with a favorable opinion.

The perceptions of respondents concerning the sensitivity of the park issue appears to be influenced by two independent factors. The perceptions of the respondents in all four communities are significantly affected (Contingency coefficent = .49, P-value = .00001) by their opinions of the park. As indicated earlier, those with unfavorable opinions saw the issue as a touchy one whereas those respondents with positive opinions did not.

Respondents with neutral or uncertain and favorable park opinions were influenced by a second factor that might be labeled a "community" effect. Respondents within this group who lived in communities were remote from the park were less likely to view the park as a sensitive issue. This effect appeared to be a function of the magnitude and number of perceived direct impacts of the park upon a respondent, his family, or community.

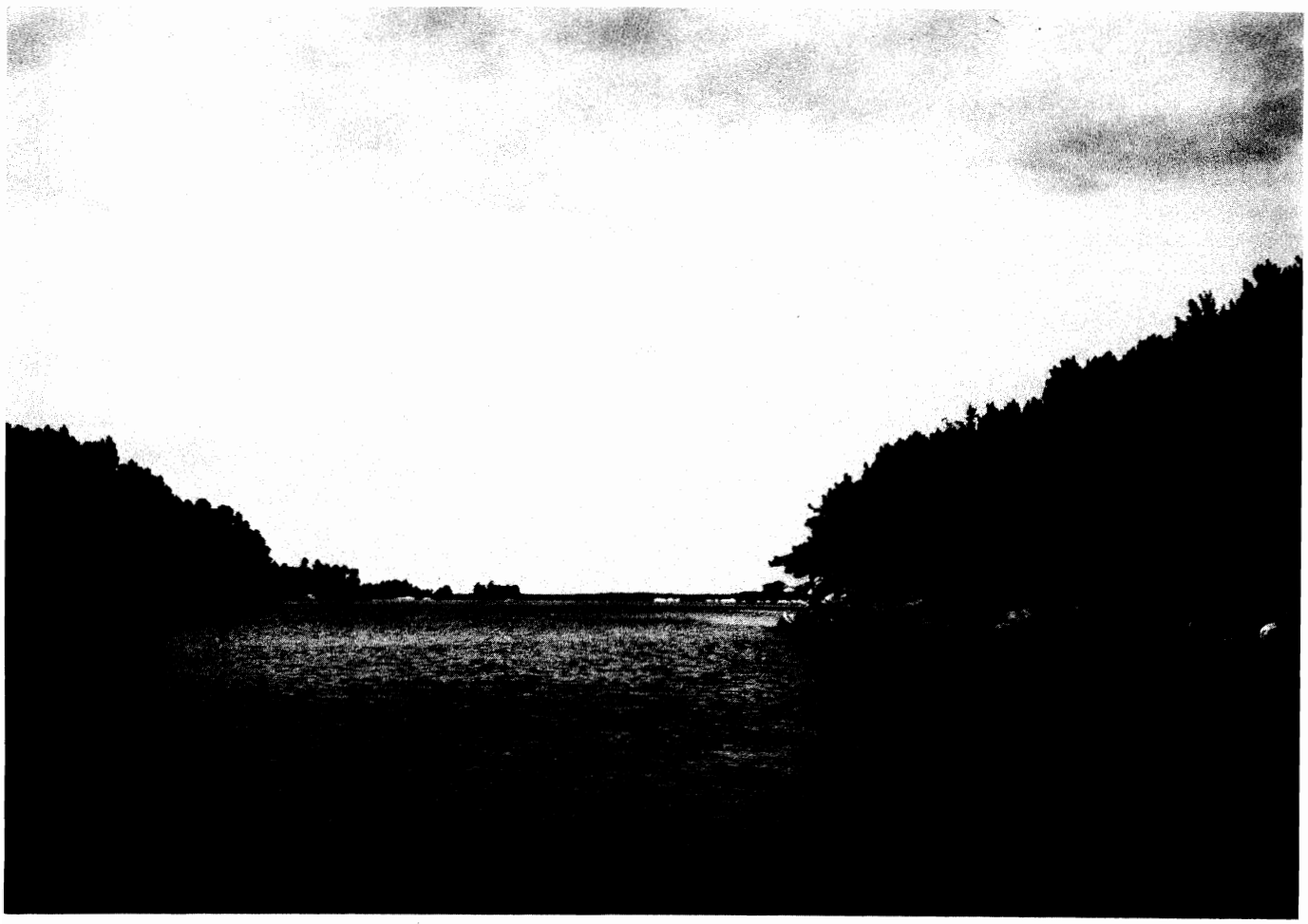
The affective component of attitude (opinion of the park) appeared to influence the cognitive task of evaluating the park as a community issue. Opinions had a substantial impact upon a respondent's perceptions and evaluations of facts and events relating to the park. Affect (personal feeling) thus is a very real component of park attitudes and plays an important part in a respondent's ability to assimilate information and make judgements based upon that information. Recalling that 35 percent of the Roseville and 45 percent of the Duluth respondents were able to recall at least one fact concerning the park would indicate that the issue may be primarily one of personal feeling for respondents from these two communities.

An Explanation of Variation in Park Opinions

JOBS AND PARK OPINIONS

The employment status of respondents was found to be significantly related to park opinions only among International Falls respondents (Lambda Coefficient of Association = .14). Fifty-two percent of the employed respondents

Namakan Lake in Voyageurs National Park, a favorite fishing location somewhat remote from roads, but open to motor boats.



had a negative opinion of the park as did all unemployed respondents and 42 percent of the homemakers. More than 75 percent of the forest products industry employees had a negative opinion of the park. In sharp contrast, only 10 percent of the retired Falls respondents expressed a negative park opinion. Jobs, economic security, and economic health of the community were reflected in the concerns of a sizable proportion of the International Falls respondents. Jobs and economic security simply had a higher priority than a park that might jeopardize such basic concerns.

LEISURE LIFE STYLES AND PARK OPINIONS

Prior recreational use of the park area was significantly related to park opinions of International Falls (Lambda = .16) and Virginia respondents (Lambda = .21). Earlier discussions indicated that a higher percentage of respondents from International Falls and Virginia participated in consumptive and motorized activities than did Duluth and Roseville respondents. With Park Service policy prohibiting hunting and trapping while strictly regulating motorized activities such as snowmobiling, many local respondents were adversely affected by the Park. This is reflected in the significant associations between prior recreational use and park opinions in International Falls and Virginia. The relationships are not significant in Duluth and Roseville because Park Service management policy encourages and manages for the activities that these users have traditionally participated in while visiting the area.

NORTHERN MINNESOTA PROSPERITY AND PARK OPINIONS

The perceived impact of the Park upon the prosperity of northern Minnesota was significantly related to the Park opinions of respondents in each of the four communities (see table 3). A majority of all respondents who believed the Park would do more harm than good had negative opinions of the Park (ranged from 71 percent in Duluth to 90 percent in Virginia). However, the percentage of respondents who thought the park would do more harm than good decreased from 24 percent of the International Falls and 19 percent of the Virginia samples to less than 8 percent of the Duluth and Roseville respondents.

Within the International Falls and Virginia samples the perceived impact of the Park upon northern Minnesota prosperity appeared to be closely linked with questions of local autonomy and control. Who, for example, should make the final decision whether a large tract of privately owned commercial forest land should be made into a park—local property owners, the state,or the federal government? The establishment of the Park was viewed by some International Falls and Virginia respondents (particularly Virginia respondents) as an impediment to the economy of northern Minnesota. The removal of private land from timber production was viewed as an obstacle to the future growth of the region. The high level of association in the Virginia sample (Lambda = .46) may have been due to respondent experiences with the United States Forest Service and the Boundary Waters Canoe Area. A number of Virginia respondents explicitly drew a parallel between events occurring in the two area.

The perspective of Duluth and Roseville respondents was very different from that held by respondents in International Falls and Virginia. The Park was viewed as an economic asset for northern Minnesota by 69 percent of the Duluth and 77 percent of the Roseville respondents. These respondents did not perceive the Park as affecting themselves or their communities. The widely held belief among Duluth and Roseville respondents that the Park will bring a measure of prosperity to small northern Minnesota communities appears to be a reflection of the general belief that parks are inherently good—ecologically, recreationally, socially, and economically.

Table 3. Variables that are significantly related to the Park opinions of respondents.[1]

Variable	Sample Community: Int. Falls:	Virginia:	Duluth:	Roseville:
Employment status of respondent	.14[2]	n.s[3]	n.s	n.s
Prior recreational use of park area	.16	.21	n.s.	n.s.
Park impact upon northern Minnesota prosperity	.26	.46	.10	.04
Time respondent lived in community	n.s.	.00	n.s.	n.s.
Perception of the park as sensitive issue	.08	.36	.19	.09
Heard about the park in last year	n.s.	n.s.	n.s.	.09
Impact of park on property values	n.s.	.07	n.s.	n.s.

[1]Explanatory models for the variables that are significantly related to the park opinions of respondents are discussed in detail in Loesch, 1978, "The Attitudes of Residents in Selected Minnesota Communities Toward Voyageurs National Park," Ph.D. Dissertation, University of Minnesota, College of Forestry.

[2]The values are Lambda coefficients of association.

[3]Not significantly related to the park opinions of respondents in that particular community.

Saginaw Bay on Rainy Lake, Voyageurs National Park— a sheltered cove during storms and high winds.

ISSUE SENSITIVITY AND PARK OPINIONS

Whether respondents perceived the Park as a sensitive community issue was significantly related to the Park opinions of respondents in each of the four communities (see table 3). The association (Lambda - .08) was quite weak in International Falls because almost 90 percent of all respondents believed that the Park was a sensitive issue. The Park has been a source of considerable conflict in this community for nearly 15 years.

The perception of the Park as a sensitive issue was strongly related to the Park opinions of Virginia respondents (Lambda - .36). Respondents who did not favor the Park tended to see it as a sensitive issue (88 percent did) whereas few of those who had a favorable opinion viewed the issue as a sensitive one (18 percent did). The affective component of attitude (feeling) thus had a very strong influence on the perceptions of Virginia respondents and their judgements concerning the issue. The strength of the association may have been partially due to the perception that the Park Service and "Twin Cities" interests were taking away traditional rights to use the area. There also appeared to be a general dissatisfaction with how politicians and government agencies had handled the entire situation.

Duluth respondents who had unfavorable opinions of the Park felt it was sensitive, as compared with 22 percent of those who were neutral or uncertain and 18 percent of those with favorable opinions. Here again, the affective component of Voyageurs Park attitudes influenced the perceptions of events and information relating to the Park.

Similarly, in Roseville 3 out of the 4 respondents with negative opinions of the Park believed the Park was a sensitive community issue (there were only 4 respondents who believed it was a sensitive issue).

Several other variables significantly related to Park opinions are presented in table 3 but not discussed here. Individual explanatory models were developed for each of the four communities.

Analysis suggests that residents in the smaller communities located closer to the Park (particularly International Falls and Virginia) form their attitudes from the perceived impact of the Park upon jobs, economic security, community growth, and life styles (including recreation). A substantial proportion of local respondents have negative opinions

because they believe that the Park will adversely affect these major considerations.

In contrast, many respondents from the more distant and larger metropolitan communities have more favorable opinions of the Park because it has no direct adverse local impact upon them (in terms of social costs). These opinions are consistent with the belief that parks are inherently good.

Attitudes toward Voyageurs National Park are thus formed from (1) a respondent's value set concerning the utilization of natural resources, and (2) perceptions of the impact of the park upon a respondent, his family, or community.

The following four generalizations are advanced as an explanation of the tendency for residents to have a more favorable opinion of Voyageurs National Park as they reside farther away from the Park itself:

1. Formation of attitude toward the Park is strongly influenced by both the number and magnitude of perceived impacts that a park has upon the individual, his family, or community.
2. Some respondents living closer to a park tend to have less favorable attitudes than those living farther away because the park brings a greater disruption of existing life patterns (i.e., leisure activity patterns). Others may feel the park reduces life style change options.
3. In situations where respondents do not perceive the park as having a direct impact upon them, attitudes toward the park are formed from a broad set of societal environmental values and perceived personal needs. This broad set of beliefs places a high positive value on parks.
4. Local residents tend to have less favorable attitudes toward the Park than those living farther away because a sizable proportion of the population has a value set which views resources in terms of their consumptive utility.

Conclusions

Several findings from this study have broad policy-making implications. This study has shown that Voyageurs Park is bringing and will continue to bring significant social change to local park area residents. The park has been perceived as having an effect on jobs, economic growth of the community, community leisure patterns,local control and autonomy. The Park affects the foundations of personal and community life of these residents. Decisions made by park managers are going to have an impact upon local residents, such as residents in International Falls and Virginia. It is critical that an assessment of the impact of various management alternatives upon surrounding communities be conducted before decisions are made. Voyageurs National Park is not an island of green separated from the surrounding world. It is part of the life space of local residents.

Analysis indicated that northern Minnesota respondents underestimated the impact of tourism upon the economy of northern Minnesota. The implications of this are particularly critical for International Falls. Local residents must take an active interest in planning to cope with change. It would be preferable for community members to have an effect on change.

Last, it was found that respondents outside of the immediate area of the Park (Duluth and Roseville) were generally either not aware of the issue or had little factual knowledge of the Park. When managers seek public input into the planning process, it is imperative that a well informed public be present to express their needs and desires. This study has indicated that attitudes of local residents are very different from the majority of Minnesota residents interviewed. To obtain input from a broad cross-section of the Minnesota public, large segments of the urban Minnesota public need to be exposed to basic information on the Voyageurs National Park and what it means to Minnesota.

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