

BEFORE THE INDIAN CLAIMS COMMISSION

THE PRAIRIE BAND OF THE POTTAWATOMIE)	
TRIBE OF INDIANS, et al.,)	Docket No. 15-C
)	
HANNAHVILLE INDIAN COMMUNITY, et al.,)	Docket No. 29-A
)	
CITIZEN BAND OF POTAWATOMI INDIANS,)	Docket No. 71
)	
Plaintiffs,)	
)	
v.)	
)	
THE UNITED STATES OF AMERICA,)	
)	
Defendant.)	

Decided: May 26, 1976

FINDINGS OF FACT

The Commission makes the following findings of fact which are supplemental to findings numbered 1 through 25 previously entered herein.

26. Lands to be Valued.

The lands to be valued in this proceeding are situated in northeastern Illinois and eastern Wisconsin, along the western shore of Lake Michigan, and are identified as Royce Area 187 and part of Royce Area 160. In addition, the evaluation includes nine sections of land in Royce Area 148 in northeastern Illinois, and three tracts in southwestern Michigan, Royce areas 188, 189, and 190. The Illinois and Wisconsin lands were ceded to the United States under the Treaty of September 26, 1833, by the United Nation of Chippewa, Ottawa, and Potawatomi Indians. The Michigan tracts were ceded on September 27, 1833, under Articles Supplementary to the Treaty of September 26, 1833, by the chiefs and head-men

of the said United Nation residing upon the reservations situated in the Territory of Michigan south of the Grand River. 7 Stat. 431, 442. (See title opinion in subject dockets, 28 Ind. Cl. Comm. 454, 460-64 (1972).) The numbered Royce areas used herein are those shown on Royce's maps in the 18th Annual Report of the Bureau of American Ethnology (Part 2), Indian Land Cessions (1896-1897). The Bureau of Land Management has determined and the parties accept the acreage of the tracts to be as follows:

Royce Areas 160 and 187 (Wisconsin and Illinois)5,110,148

Royce Areas 188, 189, 190 (Michigan) 104,960

The nine sections in Area 148 are described under the caption "Further Treaty Consideration."

February 21, 1835, the proclamation date of the Treaty of September 26, 1833, and the Supplementary Articles thereto of September 27, 1833, is the date of valuation for the lands ceded under the treaty and supplementary articles. 28 Ind. Cl. Comm. 454, 497. The ceded lands are described in the Commission's title proceeding herein (supra).

27. General Boundaries of Tracts to be Evaluated.

The principal tract to be valued consists of two adjoining Royce Areas, namely, 187 in northeastern Illinois and southeastern Wisconsin, and most of Royce Area 160 in Wisconsin, immediately north of Area 187. The eastern boundary of the two areas is the western shore of Lake Michigan, extending from the present day Evanston, Illinois, just north

of Chicago, to the northernmost tip of the Door Peninsula between Green Bay and Lake Michigan. The southern boundary is a line running west from Evanston about 87 miles to the east side of Rock River at approximately present-day Byron, near Rockford, Illinois. The western boundary extends from that point north along the Rock River, and along a line east of Lake Winnebago, continuing north along Green Bay, and northeastward to the tip of the Door Peninsula. (See map appendix II, 28 Ind. Cl. Comm. 495.) Royce Areas 187 and 160 include all of Boone, McHenry, and Lake counties, the northern portions of DeKalb, Kane, and Cook counties, the eastern portion of Winnebago County, and the northeastern corner of Ogle County in Illinois. In Wisconsin, the lands to be evaluated include all of Walworth, Kenosha, Racine, Waukesha, Milwaukee, Washington, Ozaukee, Sheboygan, Manitowoc, Kewaunee, and Door counties, and the eastern portions of Rock, Jefferson, Dodge, Fond du Lac, Calumet, and Brown counties. Royce Area 160 contains 1,611,982 acres plus 18,114 acres of islands. The land area of Royce 187 is 3,480,052 acres.

Royce Areas 188, 189, and 190, the three relatively small tracts in southwestern Michigan are in parts of present-day St. Joseph's, Kalamazoo, and Berrien counties and contain approximately 105,000 acres.

Physical Characteristics

28. Climate.

The Michigan, Illinois, and Wisconsin lands being valued are in the north central part of the United States, having a generally temperate climate with distinct seasonal variations typical of this

area. The annual precipitation is about 30 to 35 inches, much of which occurs as rainfall during the crop-growing season from April to October. Northern Wisconsin is somewhat cooler, with a shorter growing season than the other tracts here involved, but all have at least a 160-day frost free growing season which is sufficient for many grain crops. Average summer temperatures range from 66° to 75°, and average winter temperatures from 26° to 20.6°.

29. Land Types.

Of the 5,110,148 acres in Royce Areas 187 and 160, about 3,945,000 are generally described as prairie-hardwood and 1,166,000 in the portion of Area 160 north of Sheboygan, Wisconsin, are part of the woodlands of the Great Lakes region and are often designated the pinery or timber-pinery. Sheboygan is close to the southern boundary of the northern forest area according to the United States Forest Service's classification of forest regions of the continental United States. The portion of Wisconsin south of Sheboygan is part of the central hardwood forest which extends south into northern Illinois and also includes the Michigan tracts here under consideration.

From Sheboygan north, the portion of Area 160 in subject tract contained thick stands of timber, including white pine valuable for lumbering. This gave rise to the name, "the pinery" for the northern part of Area 160. Further south in Wisconsin and northern Illinois, stands of woods were interspersed with open prairie lands. The soils

of these lands were more favorable to growing agricultural crops than were the soils of the timber lands further north. Much of the soil in Area 187 was classified as excellent or first rate by surveyors who frequently noted that the prairie was broken by "oak openings". These were level to gently rolling areas in Michigan, Illinois, and Wisconsin which were park-like, with widely scattered oaks, no undergrowth of young trees or brush, and the surface of which was covered with grass. Burr oak openings differed from regular oak openings in that the surface was level and the oaks so evenly spaced that they resembled a planted orchard. Oak openings were regarded as evidence that the land was exceptionally good for cultivation.

30. Soil.

The soil in subject tract north of Milwaukee contains red clay deposits with some sand and clay. Limestone bedrock and deposits are also present. Where burr oak openings existed, the soil was loam to sandy loam. The soil associated with white oak openings had more clay.

In Racine County, glacial drift of about 20 feet covers red clay beds. In the southern portions of the area, the black to brown prairie loams, similar to Illinois soils, are noted. The predominant soils from the Illinois state line north to the Milwaukee River and Lake Winnebago are the Miami-Bellefontaine Association and the Bellefontaine-Rodman Association, the former being more productive than the latter.

The prairie soils are the basis for the cornbelt and are the most productive soils known. These are found in northeastern Illinois and southeastern Wisconsin, mainly in Area 187.

The soils of the Door Peninsula and southwestern Michigan are called Podzols and may be grey to brown. In some areas these soils are forested. On the Door Peninsula and in southwestern Michigan the land is used for general farming, truck crops, dairying and orchards: peaches and apples are grown in Michigan and cherries in Door County.

Early surveyors used the term "barrens" to designate areas which were later called "oak openings" in descriptions of nonforested areas in Michigan, Illinois, and Wisconsin close to clumps of oaks and other trees. Notes of surveys of Royce Areas 187 and 160 provide general information on the soil and physical resources of the lands here involved. The soils of the northern forest lands were not as favorable for growing agricultural crops as were the soils of the open prairie lands further south, where the soils were classified as first rate and good second rate for crop cultivation. The entire area was well supplied with streams, rivers, and lakes.

Studies of wheat crops in four Wisconsin counties indicated a marked disparity in the quantity of wheat produced in 1860 on the open portions of subject land as compared with the more wooded areas. Milwaukee and Ozaukee counties consisted of more forested lands than Racine and Kenosha counties where oak openings were prominent. The average size of farms in Milwaukee and Ozaukee counties was approximately the same, 65 acres, and the cleared and cultivated land was 64 acres, of which 35 were arable. These farms produced about 66 bushels of wheat

per acre. By contrast, farms in Racine and Kenosha counties contained an average, respectively, of 116 and 120 acres, while the arable land amounted in the first to 97 and in the second to 80 acres. The average quantity of wheat produced per acre in Racine and Kenosha counties in 1860 was 232 bushels. The report on these counties noted also that the farmers in Racine and Kenosha counties had livestock more than twice as valuable as the farmers in Milwaukee and Ozaukee counties further north.

31. Preferred Locations.

Settlers in the midwest in 1835 preferred locations that combined timber, prairie, and water. They did not want all prairie and (except for lumbermen) did not ordinarily want all timber. All settlers needed timber for their cabins and other farm buildings, for rail fences, and for fuel. Settlers who found a combination of grassland, timber, and surface water, could build their houses near water, graze livestock, use cleared or prairie land for growing crops, have lumber available for construction, fuel, and similar purposes.

Preparing prairie land for cultivation was a difficult, time-consuming task. Thickly interwoven roots of prairie grasses were so tough that the sod could not be broken with ordinary plows but required special breaking plows. Such a plow was described as an unwieldy, massive implement drawn by five or six yokes of oxen. With the largest of these plows, a furrow of only about 30 inches could be turned. Prairie breaking on any substantial scale required investment in special machinery and workstock

which many settlers could not afford. Some used custom breakers and hired their breaking done by men who maintained plows and teams for the work and who themselves might hire men to work in breaking crews. Others pooled their livestock and plows and worked together.

32. Population Movement and Settlement.

The population of the United States was increasing by about 3% a year at the time of the evaluation. It more than tripled during the years 1810 to 1850. Illinois became a state in 1818, Michigan in 1837, and Wisconsin in 1848. The greatest increases in settlement up to about 1830 occurred along the Ohio, Mississippi, and the Missouri rivers. This settlement pattern was changed by the opening of the Erie Canal in 1825, which provided routes other than the Ohio River from the east to the Northwest Territory. After 1883, the population of Michigan, northeastern Illinois, and eastern Wisconsin expanded rapidly. The increase was made up mostly of settlers from the eastern United States who used the Erie Canal and the Great Lakes. Although pre-1830 population concentration in Illinois was in the southern and western portions of the state, close to the Ohio and Mississippi rivers, and the pre-1830 population of Wisconsin settled in southwestern Wisconsin in the lead mining region, population in northeastern Illinois and southeastern Wisconsin increased greatly following the cession of the plaintiff's lands in 1833. The settlers came into the subject

lands after 1833 principally by way of the lakes from the northern and eastern states, some using a mixed land and water route-- the Erie Canal to Buffalo, steamboat to Detroit, and from there, the Chicago road around the end of Lake Michigan and various trails into Illinois and Wisconsin.

The earliest settlers in Wisconsin and Illinois came from the south by way of the Mississippi and its tributaries. Galena, Illinois, west of subject lands, was the center of the lead-mining region of northwestern Illinois and southwestern Wisconsin. The lead-mining regions were settled, largely by new-comers from the south, before the lands of the subject tract near and within Chicago and Milwaukee began to attract settlers after 1833 or 1834.

The Erie Canal, connecting the Great Lakes with New York City, was opened in 1825. The first boat left Buffalo on October 26 and reached New York City on November 4. It gave an impetus to the movement of New Englanders into Michigan, northern Illinois, and Wisconsin. The canal provided relatively cheap and easy transportation for persons and goods to the unsettled portions of the old Northwest Territory. It was an important factor in pushing the frontier to the northwest rather than toward the west by way of the Mississippi and Missouri river routes. Up to the time the Erie Canal was opened, settlers from the east moved first into the southern portions of the Northwest Territory because they frequently came by way of the Ohio River which was the southern

boundary of the territory. Following the opening of the Erie Canal, however, subject tracts became more accessible to the eastern United States than they had been, and settlers from the east moved rapidly onto these lands in southwestern Michigan, northeastern Illinois and eastern Wisconsin following their cession by the Indians. As the lands were opened for sale, settlers first selected the most accessible and to them the most desirable agricultural lands and townsite locations. Choice locations were often settled on before surveys were completed or the lands put on the market.

Before Michigan became a State in 1837, Michigan Territory included the present-day State of Wisconsin. The population of Michigan Territory increased by 255% between 1820 and 1830. Between 1830 and 1840, there was an increase of 570%, from 31,639 to 212,267, in Michigan Territory's population. A total of 11,683 people lived in Wisconsin Territory when it was formed in 1836. Two years later its population was 18,149. Illinois became a state in 1818. Its population increased almost 350% between 1810 and 1820, 185% between 1820 and 1830, and continued to increase through 1840. The population of subject tracts had been increasing before the evaluation date and the settlement of the area by newcomers continued to increase rapidly thereafter.

33. Transportation.

Overland travel was difficult, slow, and hazardous. Many early roads followed buffalo and Indian trails. Bad weather often left them

impassable for wagons or coaches. A stage covered from 60 to 75 miles a day in good weather, less when the ground was soft. Wagons were much slower.

A military road between Chicago and Detroit was begun in 1825. It followed the Fort Dearborn-Detroit trail along the shore of Lake Michigan, branched off at St. Joseph, Michigan, continuing east to Detroit. In 1832 there was stage coach service between Detroit and Niles, Michigan, and by 1833, stages continued all the way to Chicago. The trip took approximately six days. North of Chicago, the military road to Green Bay, surveyed in 1833, followed an Indian trail which had two branches near Chicago and two branches also near Milwaukee. Overland travel between Chicago and Green Bay required five days. About 1832, a stage coach line operated between Chicago and Ottawa, Illinois. Coach lines increased in and from the vicinity of Chicago during 1833 and 1834 as did freight transportation by wagons. A permanent mail route between Chicago and St. Louis was in operation by January 1, 1834.

Early in 1836, a number of inhabitants of Rock River, (present-day Janesville), Wisconsin, sent a petition to Congress requesting that a post route be immediately established between Lake Michigan and the Mississippi. The petition remarked that a road from Racine to the Janesville site on the Rock River had been surveyed and requested that such a road, continuing on to Cassville on the Mississippi, be built. A mail route from Racine to Cassville was approved in the Act of July 2, 1836 (5 Stat. 106-07).

39a. Shipping.

In 1831, schooners and other vessels began arriving in Chicago regularly. During 1834, hundreds of persons arrived at Chicago by boat, steamers made weekly trips between Buffalo and Chicago, and many vessels carried passengers and freight from St. Joseph and other points on the east side of Lake Michigan across to Chicago on the western shore of the lake. Prior to the opening of the Erie Canal, freight shipped to the West from the East Coast was ordinarily sent by way of the Ohio River and the Mississippi. From about 1833 and thereafter, much of this freight was sent to Chicago and shipped or otherwise sent from there west, as the shipping distance might be shortened this way. About 120 vessels arrived at Chicago in 1833, and by 1835 twelve to fourteen vessels a week, most carrying merchandise for Chicago, used the harbor there. In addition to Chicago, almost every river mouth along the western shore of Lake Michigan, e.g., Kenosha, Racine, Milwaukee, Sheboygan, Manitowoc, and Green Bay in Wisconsin, was used for shipping and passenger traffic.

There was also shipping on the Mississippi which carried some passenger traffic by way of Rock River along the western boundary of Area 187 to points such as Janesville in Rock County, Wisconsin, until about 1835.

The Illinois-Michigan canal, connecting the waters of Lake Michigan by way of the Chicago and Kankakee rivers with the Illinois River which empties into the Mississippi, established an inland connection by water

between the Atlantic Ocean and the Gulf of Mexico. The canal, located just south of subject tract, was authorized but not constructed, on the evaluation date. Its influence on shipping in the Chicago area was considered important as early as 1833.

By a petition dated November 1, 1834, owners and masters of vessels using the Great Lakes petitioned Congress to appropriate funds for a harbor at Milwaukee. The petition estimated that about 150 vessels would have entered at the port of Mackinaw bound for different points on Lake Michigan. The petition pointed out that there was then no harbor on the western shore of the lake from the entrance of Green Bay to Chicago and that the construction of a harbor at Milwaukee was practicable and would add to the safety of lake navigation and benefit the commercial interests of the country. The petition observed further that lands on the north of the Milwaukee River were then being surveyed and would be ready for market the following year, and that the quality of the soil and other favorable aspects of living in the area would attract settlers.

A petition to Congress from the inhabitants of Milwaukee which was referred on January 18, 1836, requested an appropriation for building a lighthouse and for the surveying and construction of a harbor. The petition stated that great damage was sustained on Lake Michigan because the west side of the lake had no good harbors between an outlet of Green Bay and Chicago. There were 97 arrivals at Milwaukee port in 1835,

though only about 3 the previous year. At least eight vessels were lost in 1835, due in part (according to the plaintiffs) to lack of harbor facilities and a lighthouse. The plaintiffs observed that lands in the area were being rapidly settled.

The opening of the Erie Canal in 1825 marked the beginning of national waterway transportation. Up to that time there was almost no transportation of bulky goods between the Atlantic Coast cities and lands in the old Northwest Territory. Road transportation was slow and costly. But the Erie Canal provided low cost transportation between the Great Lakes and the Hudson River. It crossed New York from Buffalo on the shores of Lake Erie to Albany and Troy on the Hudson. Mules plodding along the banks pulled boats through the canal. Although slow, the cost of transportation was cheaper than land travel.

The Erie Canal was an important route for emigrants, their belongings, and eastern manufactured goods. Before 1835 most trade along the Great Lakes flowed from east to west. Goods were not moved commonly from the Northwest to the East Coast because the northern and western sections of the old Northwest Territory had small populations and no developed economies. The production of grain along the lakes and the rise of ports on the lakes to handle the grain trade were important in the development of the region. Ports, which were connected with a system of roads, canals, waterways, and later railroads, became the

important lake ports along Lake Michigan. Lake trade expanded in the 1830's.

Waukegan, Illinois, and Kenosha and Racine, Wisconsin, were competing with Chicago and Milwaukee for the grain surplus from farms in the subject area. Until 1845 or 1846, Racine received more grain than Milwaukee.

33b. Railroads.

The Baltimore and Ohio was the first railroad in the United States built to carry passengers and freight. It was chartered in 1827 and opened for traffic for a short distance (13 miles) in 1830. The South Carolina Railroad, now a part of the Southern Railway, was the first railroad to use steam engines in regularly scheduled passenger and freight service. In 1830, it began trial trips of the first practical locomotive built in the United States. In 1833, the South Carolina railroad ran the 136 miles between Charleston, South Carolina, and Hamburg, Georgia, demonstrating the feasibility of rail transportation in this country. Before 1840 New York, Pennsylvania, and several other states had nearly 5,000 miles of railroads in operation. Railroads between Chicago, Milwaukee, and other points of subject tracts were planned in 1833. None was constructed by the evaluation date.

34. Michigan Tracts, Royce Areas 188, 189, and 190.

The French established an outpost, Fort St. Joseph, at Niles, Michigan, which served from about 1690 on, variously, as a missionary

settlement, trading center, and frontier fort. It was situated in a strategic position where the trail from Detroit to the southern end of Lake Michigan (not far from Chicago) met a trail coming up from Indiana, near the portage to the Kankakee River which led to the Mississippi by way of the Illinois River. Thus the fort was located on the principal trade routes in southern Michigan and close to the main transportation and trade routes in the area. Present-day Niles is largely within Royce Area 190 in Berrien County in southwestern Michigan. The land was described as rich, abounding with wild fruits and animals, and as very fertile where cultivated. Archaeological investigations of the area indicate that it was inhabited by Indians from the earliest known times of the occupation of Michigan.

The agricultural lands of the 1830's in Michigan were located mainly in the four southern tiers of counties. Settlement increased rapidly in southwestern Michigan after the opening of the Erie Canal in 1825. Railroad construction began in 1836. Michigan Territory became a state in 1837. Sawmills were being operated on lands close to Royce Areas 188, 189, and 190 on the valuation date. The first grist mill in St. Joseph's County was reported in 1828 and another was constructed in 1830. A saw mill was completed in 1828 in White Pigeon, and in 1829, brick was first made in St. Joseph's County.

Indian lands in Royce Areas 188 and 189 in Michigan included some of the choicest lands in St. Joseph's County consisting of both prairie and oak openings, and, in the northern parts, of heavily timbered lands.

The overall development of St. Joseph and Kalamazoo counties in which Areas 188 and 189 are located changed quickly between 1829 and 1835 when small enterprises were started. These included wool carding, flour milling, and manufacturing shoes, flour barrels, wagons, and bricks in St. Joseph's County. The value of lands rose rapidly after 1830 in both counties until the depression of 1837. The minimum price for sale of land by the government at the White Pigeon Office in St. Joseph's County in 1831, \$1.25 per acre, was often doubled with resale of the land a short time later.

Lands which were first settled in the southern townships of Michigan were those which contained grassland, timber, and surface water. Settlers on such sites could feed livestock, cultivate a larger area than would be possible on timber land, and still cut timber for structures and fuel, and locate living quarters near water. The size of the area entered in Michigan for ordinary settlers in the 1830's was limited by the fact that most settlers could operate only small farms at this time. The plowing of the original sod and land clearing consumed much time. After the land was broken, the amount of acreage that could be cultivated depended in large part on the physical capabilities of the family members to harvest or produce the crops, as there was very little or no hired labor available.

Lumber, such as yellow poplar from the Michigan hardwood areas near Royce Areas 188, 189, and 190, was shipped to Chicago in 1832. Commercial lumber operations in the area of Grand Rapids, Michigan, though outside of subject lands, was shipped to Chicago from St. Joseph, Michigan, from about 1833 by way of water routes near subject lands. Both the lumber and the proximity to transportation routes to Chicago enhanced the value of the Michigan tracts.

35. Sawmills, Grist Mills.

Both grist mills and sawmills were necessary to settlers on subject tracts. Before and about the evaluation date, settlers chose lands near millsites in preference to most other lands.

In August 1834, the construction of a sawmill was started at the mouth of Kent Creek on Rock River, the present site of Rockford, Illinois, near the southwestern corner of Royce Area 187. Saw mills and grist mills were also developed about 1835 in DeKalb and Ogle counties in the south of Area 187. In 1833 and thereafter there were mills in Chicago and vicinity. A number of settlements in Wisconsin were selected by settlers because of their advantages as mill sites. Thus, the rapids of Root River in Racine County, several miles from the mouth of the river, was the site of a sawmill about 1835. In 1834, construction of a sawmill was started at the first rapids of the Sheboygan River about three miles above the mouth of the river. Large quantities of lumber were cut for sale there and in Chicago in 1835. A second mill site, at Sheboygan Falls,

was purchased at the Green Bay Land Office in 1835 by a number of persons who formed a company and bought the land at \$13.50 an acre. Manitowoc Rapids on the Manitowoc River was another mill site developed in 1835, and mills were also built at Two Rivers, just north of Manitowoc at about the same time. In the summer of 1834 a sawmill was built several miles upstream from the mouth of the Milwaukee River.

36. Lumber.

In the early years of the Wisconsin lumber industry, commercial operations from the lands here involved were limited to pine, preferably white pine, although Norway and other pines were also taken. Hardwoods were not logged. Pine was cut from Royce Area 160 from the Sheboygan River north to the tip of the Door Peninsula, and supplied mills which began operating on or near the shore of Lake Michigan in the Green Bay area from the early 1800's, and from the Sheboygan area beginning in 1833 and increasingly after 1834 and 1835. Lumber was floated along the water courses to Lake Michigan or the Mississippi for markets in Chicago and western points where the demand for it was strong. Commercial lumbering operations from the pinery on subject tract were not undertaken on a large scale until several years after the evaluation date, but lumber was reportedly shipped for sale in Chicago from the Green Bay area from and after 1834. Pine from the subject tract was exhausted in about 40 years after the lands were first opened for sale.

The market for white pine quickly developed. In February 1834, the Green Bay Intelligencer commented on the availability of white and yellow pine.

According to the paper, there were seven sawmills in the county and two under construction. Local pine prices were \$10 to \$12 per thousand. In Chicago pine prices were from \$25 to \$35 per thousand, which more than covered freight costs. A schooner was being built at the time for shipping lumber. In May of 1835 the paper printed objections that pine lumber was becoming scarce locally because all the best was shipped to Chicago, Mackinaw, or elsewhere. During these years, the paper carried advertisements requesting the delivery of lumber to places of industry such as a mill and a wharf in Green Bay, and to Chicago. The potential for the development of a strong lumber industry based on fine white pine in most of Royce Area 160 was established on the evaluation date and a well-informed purchaser would have been aware of the potential and of the market for Green Bay lumber in the Chicago area which began to develop shortly before the evaluation date.

In 1834, the United States opened two land offices in Wisconsin, one at Mineral Point west of subject lands, and the other at Green Bay. Entries were not possible through the Green Bay office until the spring of 1835. At that time, a rush of settlers competed in filing for lands, chiefly for locations near the lake shore, such as Milwaukee, Racine, Sheboygan, Kenosha, and Manitowoc. Lands west of the lake in Milwaukee, Kenosha, and Racine counties were also settled rapidly in 1835. Settlers and speculators bought 878,014 acres of Wisconsin land before the end of 1836. Although neither the land nor the timber was open to sale

until after survey, and subject lands in Wisconsin were surveyed between 1834 and 1839, it appears that the War Department, without express statutory authority, issued permits to log from Indian lands in Wisconsin after 1830. With or without such permission, lumbermen reportedly carried on timber operations from these lands from about 1810, although these were not carried on as ordinary business until about 1837.

Because of the large profits being made in the lumber ~~industry~~ in New York in the 1830's, and the favorable business climate generally, eastern speculators considered Wisconsin timberlands a good investment. Large amounts of Wisconsin pine lands were purchased by nonresidents, including persons from New York, Chicago, Boston, Detroit, and Philadelphia. With the panic of 1837, much of the speculation in Wisconsin lands ended, but the lumber industry continued to grow because of a large unmet demand for timber in the Mississippi Valley. In the opinion of an historian of the lumber industry, pine from the Sheboygan-Green Bay area was marketed before that from West Virginia forests because of the accessibility of the Green Bay-Sheboygan pinery to transportation routes and markets.

A study by Paul W. Gates entitled The Wisconsin Pine Lands of Cornell University, published by the State Historical Society of Wisconsin, lists the following large entries of land in Wisconsin purchased by nonresidents between 1834 and 1839.

LARGE ENTRIES IN WISCONSIN BY NON-RESIDENTS, 1834-1839

<u>Name</u>	<u>Residence</u>	<u>Acres</u>
Baker, L.	New York City	8,420
Biddle, E.S. & T.	Philadelphia, Penna.	8,100
Bronson, F., et al. ...	New York City	24,464
Carroll, C.H. & W.T. ..	Livingston County, N.Y.	11,230
Comstock, Merle	Jo Daviess County, Ill.	15,151
Denniston, G.V.	Albany, N. Y.	5,209
Hale, E.	Ontario County, N.Y.	8,517
Hall & Olcott	Charlestown, N. H.	6,426
Healey & Kercheval	Detroit, Mich.	21,145
Hubbard, G. S.	Chicago, Ill.	6,694
Hubbard, H., et al. ...	Charlestown, N.H.	5,191
Jones, D.	Detroit, Mich.	16,233
Lyon, L.	Kalamazoo County, Mich.	23,433
Murray, C. A.	London, England	20,000
Newberry, W. L.	Chicago, Ill.	8,170
Newkirk, M.	Philadelphia, Penna.	11,355
Russell, W. S.	Boston, Mass.	26,830
Smith, G.	Chicago, Ill.	21,663
Wadsworth & Dyer	Chicago, Ill.	9,875
Walker, M. O.	Rensselaer County, N.Y.	14,909
Watson, J. T.	New York City	10,283

A prospective purchaser knew of the pressure of settlers to move into subject lands, and that for a number of years the United States had been trying to persuade the Chippewas, Ottawas, and Potawatomis to cede their Wisconsin, Illinois, and Michigan lands. A prospective informed purchaser knew of the great demand for white pine lumber in developing communities in the eastern areas of the country, and knew also of the rapid rate commercial lumber in forests east of subject tracts was being depleted. He could estimate from the rate at which the towns of Chicago and Milwaukee were growing that a large supply of commercial pine might well be in demand in these and other developing population centers in subject tract within a

relatively few years. He knew that eastern lumber suppliers had selected sites for saw mills, had begun building saw mills and selecting areas from which lumber was to be first cut a year and more before evaluation date. Because of large profits being made in the lumber industry of western New York, many easterners considered Wisconsin timber lands a good investment.

37. Site Values, Townsites.

In addition to timber values and soil values which enhanced subject lands, their location added special and unique value. Situated in the north central part of the country, bordering or immediately accessible to the Great Lakes water routes, the Erie Canal, and the Atlantic Coast, the lands are also accessible to the Mississippi River and to points west, as well as to the Gulf Coast, indirectly by way of the Chicago, Kankakee, and Fox rivers, and directly by the Rock and Illinois rivers which flow into the Mississippi. In terms of access to transportation routes and commercial markets in the country, even in 1835, when Chicago was just beginning to grow rapidly, the advantages of subject tracts were apparent. The Illinois and Wisconsin lands extended along the western shore of Lake Michigan and were bounded on the west by a tributary of the Mississippi, the Rock River, one of a number of rivers within subject tract which are within the Mississippi River watershed. Thus, products could be shipped north or east by way of the Great Lakes and the Erie Canal, and to the south or west by way of the Mississippi River

routes. Similarly, subject lands were accessible to settlers using existing water routes, or combination land and water routes from any direction.

38. Early Land Sales in Chicago.

The southeastern corner of Royce Area 187 is approximately at present-day Evanston, Illinois, the point at which the western shore of Lake Michigan borders the northern tier of townships in Cook County, Illinois, just south of Lake County, Illinois. Evanston is adjacent to Chicago and a part of the metropolitan area. From the earliest days of the fur trade and on, the strategic location of the Chicago region, between the Green Bay-Wisconsin trail and the St. Joseph-Kankakee trail, made it a great thoroughfare. At least one of the trails between Green Bay and Chicago has been known from the days of Marquette. As already noted, a primary factor in the Chicago region's continued prominence stems from its advantageous location as a point of transfer and exchange between the Great Lakes and the Mississippi waterways.

Beginning in the early spring of 1833, Chicago and the northern part of Illinois grew rapidly, Chicago increasing from a population of approximately 1,500 in 1834 to 3,265 a year later. The first town lots of Chicago were sold at auction in 1830. The lots measured 80 by 180 feet and cost from forty to sixty dollars. School section 16, a square mile which included a small part of present day downtown Chicago, was

sold by public auction which took place October 20-24, 1833. The section was divided into lots of about four acres, all but four of which were sold at an average price of \$6.72 an acre. The land was sold mostly on credit of one to three years at 10 percent interest.

Early in the spring of 1834, settlers from all parts of the East began to pour into the Chicago area to obtain lands, including those to be offered for sale following the Potawatomi cession under the Treaty of September 26 and 27, 1833. By the middle of May, the price of land in Chicago and vicinity increased rapidly, encouraging land speculation. In 1835, Cook County had a population of almost 10,000, and town lots in Chicago were selling at very high prices. For example, an 80' x 150' water front lot which sold for \$3,500 in 1834 sold 15 months later for \$15,000.^{12/} Early in the spring of 1835, an 80-acre unimproved tract sold for \$62.50 an acre, although not located in a particularly desirable area. The land was resold at \$1,000 an acre within three or four months.

The growth and development of Chicago stimulated the settlement and demand for land in nearby northern Illinois in Area 187. In 1835, Chicago provided a number of industries and services. A branch of the state chartered bank was opened in December. Coaches were running to St. Louis in five days (only daylight travel). Two newspapers

^{12/} Townsite lots varied in size but usually contained less than an acre. (Under 1863-64 legislation, Rev. Stats. §2380 et seq., townsites on public lands were to be surveyed into lots not to exceed 4,200 square feet. An acre is 43,560 square feet.)

were established, as were two soap and candle factories. An 1835 census reported that Chicago's population was 3279 residents, and that it contained 44 drygoods, hardware, and grocery stores, two book stores, four druggists, two jewelers and silversmiths, two tin and copper factories, two printing offices, one steam saw-mill, two breweries, one iron foundry, four warehousing and forwarding houses, eight taverns, one lottery office, one bank, five churches, seven schools, 22 lawyers, 14 physicians, a lyceum, and a reading room.

39. Milwaukee.

From 1795 and thereafter, traders maintained posts at the site of Milwaukee about midway between Green Bay and Chicago on Lake Michigan. Three rivers flow into the lake at Milwaukee, which made its potentialities as a harbor and port city evident from early times. One trader, Solomon Juneau, had worked in the Milwaukee area since 1818. Somewhat later, two others started separate settlements close by. The three separate communities eventually became present-day Milwaukee. Part of the village of Milwaukee was surveyed in 1834 and plotted in 1835.

In April 1834, several New Yorkers began building a saw mill on the first rapid, about three miles above the mouth of the Milwaukee River. A second mill, closer to the mouth of the river was built in 1835. A store was opened in 1834, at which time, before the evaluation date for subject lands, there were also two trading posts, two warehouses (for furs and skins) and five residences.

Lands situated near the juncture of the Menomonee and the Milwaukee rivers were claimed before the lands were offered for sale in July 1835. When the lands were then offered, three persons were able to buy the entire area of about four sections (2,560 acres) by using preemptive and floating rights with which they could purchase the land for \$1.25 an acre. These lands were sold for up to \$600 for a quarter acre lot. All of Milwaukee County, not just the townsite of Milwaukee, was sold rapidly when it was offered in 1835. Some contemporaneous writers thought that Milwaukee might outstrip Chicago as a commercial city. Several months earlier, on the evaluation date, the demand for land in the area of Milwaukee townsite was so strong that some experts valued town lots at \$125 to \$250 per acre.

Sawmills, stores, and individual businesses were started and settlers moved into the area in increasing numbers. By 1836, the population of Milwaukee County was 2,893, nearly one-half of whom lived within the City of Milwaukee.

The plaintiffs in Docket 29-A submitted copies of Milwaukee County land records showing transactions for September 1835 through June 1836 recorded in the county deed books, which are the official real estate records of Milwaukee County. The records showed 478 transactions in all, for which a price per acre could be determined involving 23,504.6 acres. The price per acre of these 478 transactions was \$45.42, evidencing a market value per acre far above the \$1.25 mandatory price

at which public land was sold by the United States. By 1837, a city lot in what is now Port Washington, just north of Milwaukee, sold for \$300, equivalent to \$1,800 per acre. However, after the depression of 1837, Port Washington was almost deserted until 1842.

Milwaukee contained a number of structures built by Indian traders before white settlers began building in 1834. During 1834, five structures were completed, and during 1835, 16 were finished and three started. At the close of 1835, Milwaukee had 28 finished and three partly finished buildings, some of which were insubstantial. The number completed by the end of June 1836, the latest date of the sales here under consideration, is not shown, though many buildings were reportedly completed during 1836.

An informed purchaser of subject lands in February 1835 could not have known the average per acre value of interests in Milwaukee town lots sold after the evaluation date. However, he would have been aware of the high prices paid to acquire interests in those lots before they were offered at public sale, and would have anticipated that the site of Milwaukee, between Green Bay and Chicago on the western shore of Lake Michigan, assured its growth and development as an important commercial and port city. He would have expected also that the value of the townsite land exceeded, by a substantial amount, the market value of the surrounding agricultural lands.

40. Green Bay.

When Jonathan Carver, the explorer, visited the Great Lakes in 1761, he stopped at Green Bay (Le Bay) where there was a fort on the west side of the Fox River near the southern extremity of the bay. The English had gained control of all settlements in the area but the families who lived on the east side of the river, opposite the fort, were French. For two centuries after 1634, when Jean Nicolet first arrived in the Green Bay Area, the development and requirements of the fur trade were the basis of settlement and source of livelihood of most in the region. (In 1844, the American Fur Company wound up its business affairs in Green Bay.) As the fur trade declined, Green Bay quickly became a center in the development of eastern Wisconsin's lumber industry. The region's commercial timber was used up by 1875. The export of fish, agriculture and dairying and some manufacturing have been sources of livelihood in the region since 1875. A newspaper, the Green Bay Intelligencer, was published from 1833 through and after the evaluation date.

As early as 1795, land was ceded for a mill site to a settler at De Pere near Green Bay where a saw mill was constructed about 1809. The following year, a grist mill was built nearby. The homes and trading houses of early French and English settlers were built near the fort (Le Bay). American settlement began in the town of Allouez on the east side of the Fox River on relatively high ground. After 1817, the entire region was still referred to as 'the bay' and Fort Howard was considered

a frontier post on the Fox River. Increasingly after 1825, sawmill sites were in great demand. Wisconsin's pioneer furniture factory started at Green Bay in 1836.

In 1835, the Michigan legislature authorized the incorporation of a "Bank of Wisconsin" with capital stock of \$100,000 in shares of \$50.

On February 19, 1834, the Green Bay Intelligencer printed a short description of Navarino situated within the Green Bay settlement area. A town plat of Navarino was located and surveyed in 1829, at which time there was only one log house owned by Mr. Daniel Whitney on the plat. Mr. Whitney at once began to build a wharf, ware-house, stores, and dwelling houses. Early sawmills in the area furnishing lumber for local use were built in 1809, 1814, and thereafter. From early in 1833, settlers began buildings in the town and by February 1834, though a small part of the whole settlement at Green Bay, Navarino contained three wharves, thirty buildings completed, and several others started. When first offered, lots sold at from \$20 to \$100. By February 1834, they were worth from \$40 to \$500. Nearly all the water lots and those near the lake had been sold in 1834. (Town lots were ordinarily considerably less than an acre in size.)

The article on Navarino in the February 1834 issue of the Green Bay Intelligencer observed that materials for building in Navarino were ample. Good pine lumber could be purchased locally at \$10 to \$12 per

thousand board-feet, brick at \$5.50 per M; lime at 87 1/2 cents per barrel, and stone at 75 cents per perch.

41. Brown and Door Counties.

Present day Brown County in northeast Wisconsin adjoining the southeastern portion of Green Bay was covered with pine, birch, maple, and hemlock forests. The first saw and grist mills were constructed in the early 1800's. Lumber was used mostly for local purposes on the evaluation date, but a shipment of lumber was reportedly sent to Chicago in 1834. Fish, furs, maple sugar, and lead were also shipped during the sailing season at least once a week about this time.

The Green Bay (Navarino) Land District was opened in 1834. In 1835, a bank in the western part of Michigan Territory was chartered. It opened at Astor, a village near Green Bay, as the Bank of Wisconsin.

Portions of Brown, Manitowoc, and Kewaunee counties were surveyed in 1834, the earliest surveys of subject lands. These early surveys were within the Wisconsin pinery.

Door County, on the peninsula between Green Bay and Lake Michigan, includes a number of islands in both the lake and the bay, among them, Washington, Rock, and Chambers islands. Both the peninsula and the islands were covered with hemlock, pine, spruce, and fir in 1835. Big and Little Sturgeon Bays had good harbors. The soil was described as good for garden produce. In addition to the fine timber, stone quarries

for building stone and construction material were situated in several places in the county.

Rock Island, also called Potawatomee Island, is the northernmost tip of Door County. The first American settlers were six fishermen and trappers who settled there in 1835 or 1836. Both Rock Island and Washington Island supported from early times communities dependent largely on fishing for a living.

42. Sheboygan Townsite and Sheboygan Falls.

In 1834, two Chicago residents built a saw mill near the junction of the Sheboygan and Millellet rivers. This was sold the following year. When the lands in this area were offered for sale by the Government in 1835, the demand for townsite lots in Sheboygan was strong. One of the early owners of Sheboygan land acquired half of the lots in the town plat of Sheboygan village. In 1836 and 1837, according to contemporary reports, he sold a 1/16th interest in his holdings for \$30,000, and a second 1/16th interest for \$25,000. Corner lots in Sheboygan were sold by map in New York City about this time for as much as \$8,000 and even \$15,000, based, apparently, on myths about gold and other minerals in the area as well as timber. With the financial panic of 1837, speculation in Sheboygan town lots ceased.

Sheboygan Falls, a separate townsite from the city of Sheboygan, was purchased in November of 1835 by several companies of men who bid

for it and sold it for \$13.50 an acre. A mill was built there in 1835 which was used as a saw mill and also for grinding grain. A post office was established in 1836 at Sheboygan Falls. The water power of the Sheboygan River, and the surrounding pine forests close to Lake Michigan, were factors contributing to permanent settlements at Sheboygan and Sheboygan Falls.

43. Manitowoc and Two Rivers.

Manitowoc, north of Sheboygan, was first permanently settled in 1835. A lumber mill was built in 1836, which began operation in 1837. Scows were used to carry lumber down the river to sailing vessels on Lake Michigan. There was much speculation in 1836 and 1837 in Manitowoc lands. Prices reached more than \$100 and as much as \$250 per acre.

Two Rivers was another early settlement on Lake Michigan. It is north of Manitowoc. Entries were made in 1835, the year the land was surveyed. A mill was built and operating by 1837 at the end of which year 40 persons were living in the settlement. In addition to lumbering, fishing was also an important commercial operation at Two Rivers.

44. Kenosha and Racine.

A group of persons from Oswego County, New York, who wanted to settle in the area of Milwaukee, formed the Western Emigration Company in 1834. In March 1835, they left for Milwaukee where they found land prices too high. Unable to purchase land which they wanted at Racine, they

finally settled at Piles Creek (later Kenosha), south of Racine, on Lake Michigan. The settlement began to develop into a permanent community and even had something of a printing press by 1836. Its population grew from 32 in 1835 to 337 in 1840.

The city of Racine, south of Milwaukee, on the lake at the mouth of the Root River, was settled first in 1834. Early in 1835, other settlers arrived, and two sawmills were constructed. The community grew, a number of buildings were constructed, including a hotel two stories high. Between 70 and 100 persons were living in Racine by 1836.

The northern part of Racine County was located by settlers from the East in January and February of 1835. The land was considered very good for farming, attracting many settlers, including a group of 40 Norwegians who settled there in 1839.

45. Walworth County.

This county in southeastern Wisconsin contains many lakes (Lake Geneva and Delavan are the largest), good hardwood timber, fieldstone, stone outcrops, and fine prairie land. The four surveyors who originally surveyed the area in 1835 tried to initiate claims at the outlet of Lake Geneva by marking boundaries on the ground and describing their selections in their field notes. Upon returning later in the year to complete their entries, they found their claim contested by other settlers who wanted the land. By the end of 1836 there were about 200 settlers in Walworth County.

46. Fond Du Lac County.

Fond Du Lac County extends south of Lake Winnebago, the country's largest fresh water lake within a single state (about 30 miles east to west and 15 miles across at its widest point). The survey of much of the county was finished in 1834 and the rest completed in 1835 and 1836. The earliest sales of land were held in Green Bay in 1835. About this time a stock company was formed to obtain interests in a townsite at the head of Lake Winnebago. Three hundred shares of stock were sold. The company owned about 3,700 acres of land in the area of the city of Fond Du Lac at the beginning of 1836. A military road, connecting forts at Green Bay, Portage, and Prairie Du Chien, had reached the Fond Du Lac area by 1835. Settlers first moved to the area in 1836. The timber resources of the area supported a lumber industry about ten years after the evaluation date.

47. Highest and Best Use.

The highest and best use of most of the land was for resale for farming in relatively small quantities or tracts of about 160 acres. The forested lands in northern Wisconsin were additionally valuable because of their potential for commercial timber use. The townsite areas were uniquely valuable as port cities along Lake Michigan's western shore and as sites near two of the country's largest waterways, namely the Great Lakes and the Mississippi River waterways.

The quantity of land covered by newly developing townsites in 1835 was relatively very small. However, the special value because of the location which these sites had, and still have, in relation to the country's population and markets is so favorable as to require particular notice in any discussion of the highest and best use of subject lands.

48. Land Policies of the National Government.

The Act of April 24, 1820 (3 Stat. 566), provided for public sales in half-quarter sections (80 acres) to the highest bidder at not less than \$1.25 an acre. After the close of public sales, lands were subject to private entry, in entire sections (640 acres) or fractions thereof, at the minimum price of \$1.25 per acre.

A number of acts of Congress provided for the issuance of military warrants and scrip to designated persons, often those who had performed military service for the United States, to be used as credit in obtaining public lands. Some scrip was not transferable, but the time for selecting was extended a number of times. The Act of May 30, 1830 (4 Stat. 423), provided for assignable scrip.

Land was not open for sale or settlement until after survey, but settlers occasionally took possession before lands were offered for sale, hoping to obtain preemption rights or otherwise obtain title at public auction.

Surveys of most of the ceded lands here involved were not completed until after the evaluation date. Parts of Royce Area 160 were surveyed

in 1834 but most of Areas 160 and 187 were surveyed between 1835 and 1840.

The Preemption Act of 1830 (4 Stat. 420) permitted a settler on the public domain who had cultivated a tract of land in 1829 to enter up to 160 acres by paying the minimum price of \$1.25 an acre. In 1832 and 1834, Congress renewed the 1830 preemption privilege by Acts of July 14, 1832 (4 Stat. 603), and July 19, 1834 (4 Stat. 678). Once the Government had granted preemption, it was difficult to refuse it later, and the preemption privilege was extended many times by statute.

On February 4, 1835, the legislature of the State of Illinois applied to the United States Senate for an extension of the preemption laws as a large number of Illinois citizens were then living on unsurveyed lands and the existing preemption laws were based on legal subdivisions. By memorial of January 23, 1837, to the House of Representatives, Wisconsin applied for the extension of the preemption laws to lands recently acquired from the Indians. Thereafter, Congress enacted the Preemption Act of June 22, 1838 (5 Stat. 251), and similar acts in 1840 and 1841.

The Commissioner of the General Land Office in 1830 described subject lands as perhaps not excelled by any other tract of country of equal extent in the United States, considering the advantages of local position, fertility of soil, healthfulness of climate, and mineral resources. The Commissioner observed that deepening the inlet of the

harbor of Chicago would spur the development of the town.

In the era of prosperity after 1833, land was the center of much speculative investment. An estimate in a Wisconsin newspaper stated that real estate investment, for the ten years between 1825 and 1835, paid a 20 to 30 per cent return per annum. At the Green Bay land office eight million acres of land out of the thirteen million sold in 1835 were said to have gone to speculators.

Extreme speculation centered around the townsites of Chicago and Milwaukee.

. . . In 1833 Chicago was a mere frontier post; by 1836 it was the fastest growing 'metropolis' of all Christendom. Speculators were running steamboat excursions to this town and on to Milwaukee. It seemed as though almost all of northeastern Illinois was laid out in towns -- on paper. One site which was actually destined to become a great city, could boast but one humble dwelling, yet the lots on that site were commanding \$1,000 to \$2,500 each . . . [From Robbins, Our Landed Heritage - The Public Domain 63 (1950): Pls. Ex. H-238, Dkt. 29-A]

Sales in Wisconsin of public lands increased by 253% in the first nine months of 1836 over such sales in 1835.

49. Wisconsin Territory - 1836 - Settlement - Requests for Legislation in Aid of Settlers.

A message of October 26, 1836, from the Territorial Governor to the Council and House of Representatives of Wisconsin Territory recommended that the Legislative Assembly forward to Congress a memorial requesting the right of preemption to numerous and respectable inhabitants who were

then settled on the public lands. Congress had recently given a right of preemption to actual occupants of town lots, and preemption rights had previously been granted to actual settlers on other public lands. This strengthened the reasons for requesting preemption rights for actual settlers in Wisconsin territory. The Territorial Governor also recommended that a Memorial to Congress should be prepared on the subject of necessary internal improvements in Wisconsin Territory, including an appropriation to cover the expense of surveying all necessary harbors on Lake Michigan and the construction of such harbors and lighthouses to protect increasing shipping and commerce on the lake. The message further recommended that Congress be asked for funds to construct canals connecting Lake Michigan with the Wisconsin and Mississippi Rivers as well as for other internal waterways, and recommended donation of lands for construction of a railroad between the Mississippi and Lake Michigan. The message also recommended the establishment of a Surveyor General's office within Wisconsin Territory.

50. Economic Conditions at the time of Evaluation.

During the early 1830's, before the evaluation date, important industrial inventions were rapidly coming into use. Steamboats used the Great Lakes from Buffalo to Chicago and also the Ohio, Mississippi, and other rivers. The Erie Canal provided a waterway from New York to Buffalo and the Great Lakes. This route facilitated the transportation of settlers to northern Illinois and eastern Wisconsin. Many traveled

by lake to Chicago and continued west by ox-team. Although in use in 1828, railroads were not built in Illinois until after the evaluation date.

President Jackson's successful fight against renewal of the charter of the United States Bank was followed at first by prosperity with increases in property values and speculation in land and other investments. The national debt was extinguished in 1835 and remained virtually so for the next two years. On the evaluation date, February 21, 1835, the country was prospering, though this condition was interrupted by panic and the general depression of 1837. The great interest in internal improvements after the successful completion of the Erie Canal, the competition among eastern cities for products which could be supplied by the West, increasing commodity prices, and the availability of credit, all stimulated the development of western lands. Land and real estate, more than other commodities, were speculated in during the inflationary years immediately preceding the panic of 1837. Twenty eight million acres of rich lands were placed on the market by the Government in 1834 and 1835 in contrast to the average of two or three millions offered annually in the former years. In 1833 almost 4,000,000 acres of public land were sold. In 1835 over twelve million acres were sold for sixteen million dollars. In 1836, twenty million acres sold for a high of fifty-four million dollars.

The defeat in 1832 of the Sac and Fox in the Black Hawk War gave prominence to the Rock River Valley in northern Illinois and southeastern Wisconsin, to the prairies, and the oak openings in this area, and to the forests in northern Wisconsin. After the cession of subject lands in 1833, Indian land claims were extinguished and the lands were surveyed and offered for sale.

The advent of the steamer on the Great Lakes and the completion of the Erie Canal offered greatly improved means of travel to subject lands for settlers from eastern states. In the early 1830's many easterners moved west in hopes of finding better opportunities and of improving their means of making a living. Prosperous business conditions in the East stimulated new immigrants and others to move west in their search for lands.

At the end of 1834, the number of new banks increased as a result of the failure to renew the charter of the Second Bank of the United States and of President Jackson's request for the removal of government deposits from the National Bank. These deposits were redistributed among state banks ("pet banks," so-called) selected by the Government as depositories. A number of small banks near the frontier suddenly acquired several times their usual amount of funds. In the view of many historians and economists, this had an inflationary tendency as credit was easily available, commodity prices increased, and land speculation in subject lands became rampant.

The specie circular of 1836, which required land offices to accept only gold and silver as payment in sales of public lands (except sales to settlers for 320 acres or less), was influential in ending much land speculation resulting from purchases by nonsettlers of large tracts of public land.

The Government steadily offered more land than the market could absorb. So much first class land was offered that bids never rose much above the minimum, speculative buying was encouraged, and a lot of land remained unsold.

Squatters and others thought that land was worth more than \$1.25 an acre, and would soon bring much higher prices at resale. The conclusion was sustained by other evidence. Interest rates increased directly with distance from money centers and loans secured only by unimproved land commanded high rates of interest. Speculators, big and little, frequently borrowed money at 25 per cent to 50 per cent per annum in order to buy land. Borrowers apparently believed that even after paying interest sufficient to double their investment they were making a wise buy.

That many settlers paid from 25 to 50 percent interest for money to purchase their lands at \$1.25 an acre at public auction, and allowed speculators to take title to the lands in their own names as security for the money loaned, was confirmed in descriptions of the settlement

of lands in the subject tract near Milwaukee. The Green Bay Intelligencer of July 1, 1835, contained an estimate that real estate investments for the ten years between 1825 and 1835 paid a 20 to 30 per cent return per annum. A news report of March 1836, stated that at Manitowoc prices rose from \$10 to \$250 per acre. Many speculators traded in townsite lands though these often involved only paper plans for townsites and particularly desirable locations. Chicago and lands in its vicinity were the center of "speculative mania" of this sort.

Ordinarily, settlers on the frontier had little security to offer for borrowing purchase money for their lands. The defendant's appraiser found that, usually, interest rates from 10 to 50 percent were needed to make loans for such purposes. He described a frequent method used by creditors to obtain such interest rates thus:

A common practice of loan agents in the early years on the frontier was for the agent to buy the land from the U.S. Government at the minimum price of \$1.25 an acre and resell it to the settler at a price of \$1.75 an acre to be paid in one year's time. This time price sale provided the agent with a gain of 50 cents an acre which was equivalent to 40 per cent interest in a year's time on the original land price of \$1.25 an acre. This practice, since it did not specify interest but merely the sale of the land at a price, allowed the land and loan agents to avoid any illegal interest charges. This was important because maximum interest rate laws were common in the frontier areas.
[Def. Ex. V-19 at 85 et seq. from Preston, History of Banking in Iowa.]

51. Evaluation Studies and Appraisal Reports.

The plaintiff in Docket 29-A submitted a study prepared for this proceeding entitled, "An Appraisal of Certain Lands in Eastern Wisconsin and Northeastern Illinois as of February 21, 1835", prepared by George Banzhaf & Co., a forest resources consulting firm in Milwaukee. Richard G. Winslow, technical director and principal author of the study is a forest consultant with the Banzhaf firm. He testified at the subject hearing on the value of the Wisconsin and Illinois lands herein.

(Transcript of hearing on value, Vol. II at 30 et seq. (June 10-14, (1974).)

In appraising the ceded lands as of February 21, 1835, the features which Mr. Winslow regarded as particularly important were the location of the land in relation to waterways or land transportation routes, timber and mineral resources of the land, the suitability of the land for farming, and the extent to which the land had been developed through capital investments. Mr. Winslow considered access to navigable waters as being particularly important. Rivers not only provided a transportation route but also often furnished a source of water power. Mr. Winslow listed the rivers, briefly described below, as contributing exceptional value to the lands adjacent to them. The lands bordering the rivers in the areas listed to a depth of one-half mile on both sides were considered of particular value, except for the Rock River of which only the east side was within subject tract.

- Des Plaines River - 33.5 miles running north through Range 14 East in Lake County, Illinois.
- Fox River - 26.6 miles between a point north of Waterford in Racine County, Wisconsin to Grass Lake in Lake County, Illinois.
- Root River - 18.4 miles from Sec. 31, T5N, R22E in Milwaukee County to Lake Michigan at Racine, Wisconsin.
- Menomonee River - 8.2 miles from T7N, R21E in Milwaukee County to its juncture with the Milwaukee River in Milwaukee.
- Milwaukee River - 58.7 miles from T13N, R19E in Fond du Lac County to Lake Michigan at Milwaukee.
- Sauk River - 5.2 miles from Sec. 22, R22E in Ozaukee County to Lake Michigan at the present day city of Port Washington.
- Onion River - 6.6 miles from Sec. 34, T14N, R22E in Sheboygan County to its juncture with the Sheboygan River.
- Sheboygan River - 25.0 miles from Sec. 17, T17N, R21E in Manitowoc County to Lake Michigan at Sheboygan.
- West Twin River - 9.7 miles from Sec. 1, T20N, R23E in Manitowoc County to Lake Michigan at Two Rivers.
- East Twin River - 9.2 miles from Sec. 36, T21N, R23E in Manitowoc County to Lake Michigan at Two Rivers.
- Manitowoc River - 29.6 miles from Sec. 15, T19N, R20E in Calumet County to Lake Michigan at Manitowoc.
- Rock River - 118.8 miles from Sec. 15, T10N, R16E in Dodge County, Wisconsin to the southwestern corner of Royce Area 187 in Illinois.

Mr. Winslow observed that, although an appraiser in February of 1835 could not have known the actual results of the sales several months later, he obviously would have been aware of the potential long-term value and attractiveness of property located at the mouths of important rivers. The report therefore placed exceptional values on the four sections of land falling near the mouth of the Root River in Racine County, the Sauk River in Ozaukee County, the Sheboygan River in Sheboygan County, the Twin Rivers and Manitowoc River in Manitowoc County, and the Kewaunee River in Kewaunee County.

Descriptions of land sales from the Green Bay Land Office in 1835 refer to buyers who looked for bargains in future village sites. Mr. Winslow quotes the following observations from Smith, History of Wisconsin, Vol. I, 418-19 (1973):

. . . Groups of purchasers were ready when the sale opened to pounce upon tracts that would become valuable as lake ports, water-power sites, transportation arteries. Township 15 North, Range 23 East, lying in present Sheboygan County was promptly taken up by various small co-operating purchasers, mainly from Green Bay. For the highly prized sections at the river's mouth site of the present Sheboygan, sold on November 27, 1835, the same group admitted at advanced prices a few outsiders from Milwaukee and Chicago. . . . Occasionally patents were never applied for and the lands reverted to the government. But for the prized Lake Michigan village sites, patents were issued and some of the lots were held at speculators' prices for years. A township twenty-five miles to the north, in which the future Manitowoc was located, was similarly a virtual Green Bay monopoly, in which land office register William B. Slaughter and receiver S. W. Beall figured prominently. The sites of Fond du Lac, Neenah-Menasha, Janesville, Beloit, and numerous other attractive locations for future municipalities were entered late in 1835, in the fever heat of speculation.

On the evaluation date, lands in the vicinity of Milwaukee had a special value. Its location on the western shore of Lake Michigan, almost midway between Green Bay and Chicago, made Milwaukee a natural port city. Lands near the juncture of the Milwaukee and the Menomonee Rivers in what is now the city of Milwaukee had real value in 1835 for land speculators. Lots had been surveyed, capital invested, and plans made for the development of four sections (2,560 acres) at the juncture of the rivers in what became the central portion of the city of Milwaukee. Three speculators controlled these four sections. Before the end of July 1835, when small amounts of land east and west of the Milwaukee River were first offered for sale, all lands within two miles of the prospective village had been claimed, apparently by persons with floating and preemptive rights to purchase land. This forced the purchase of these lands from speculators or promoters at constantly increasing prices. The anticipation that Milwaukee would grow was a factor in maintaining high land prices in the area.

In discussing the demand of settlers for agricultural lands in the Illinois and Wisconsin tracts here under consideration, Mr. Winslow observed that there was a great amount of public land available and unsold at the minimum price of \$1.25 an acre, which tended to depress land values. Mr. Winslow confirmed the testimony of other witnesses that oak openings or savannahs were regarded as particularly valuable

for farming, and were more desirable to settlers than the open prairie. A prominent characteristic of the lands in southeastern Wisconsin and the portion of northern Illinois in Area 187 in the middle of the 1830's were oak forests and oak openings. Using a 1951 map by Robert W. Finley prepared in minute detail on the basis of an intensive study of field notes of the original surveys,^{13/} the areas in subject Wisconsin lands classified as "oak openings" were delineated and measured for acreage. As no such data exist for Illinois, Mr. Winslow's study assumed that the percentage of lands in the Illinois portion of Area 187 which consisted of "oak openings" was the same as that for Kenosha, Walworth, and Rock County east of Rock River, the named Wisconsin counties being adjacent to and just north of the Illinois lands in Area 187. Based on these calculations, Mr. Winslow found that the area in oak openings totaled 726,810 acres for the subject lands in Illinois and Wisconsin. He valued these separately from prairie lands.

The timberlands located in Royce Area 160 were another component of value of subject tracts. Timber was abundant in the southern areas but much of it was used for local purposes.

In the early years of the lumbering industry in Wisconsin, only the white pine interested commercial and industrial developers. White pine was light and easily workable, was considered desirable for all building purposes, and was easily transportable by water. The interest

^{13/} The Original Vegetation Cover of Wisconsin, May 3, 1951, is Finley's doctoral thesis, University of Wisconsin, upon which the detailed map is based. (Def. Ex. V-28.)

of lumbermen in pine gave rise to the designation of the Wisconsin north woods as "the pinery", even though pine was not predominant in many sections of the area. At the time, any tract of several hundred acres which contained an average of one or two large pine trees to the acre and which was near a stream of sufficient depth to float logs to a mill was called pineland. Both quality and the amount of pine varied from one region to another. Some areas furnished as much as a million and a half board feet per forty-acre tract, almost forty thousand feet per acre. Others yielded only a thousand to thirty-five hundred board feet to the acre. Mr. Winslow believed that the average for the region was probably 5,000 to 6,000, and perhaps more.

Rivers and streams were essential for early lumbering. These waterways provided the means of transporting logs to the mill and also water power for operating the mill. Because of its streams and pine timber, the portion of subject Wisconsin tract which is north of Sheboygan was potentially valuable for lumbering. However, on the appraisal date in February 1835, little commercial development had taken place. But from 1834 on, surveyors' notes recognized that the lands in Royce Area 160 north of Sheboygan were potentially valuable for lumbering, with many references to pine suitable for lumber, and streams offering excellent mill sites. Sawmills were established at Sheboygan, Manitowoc, and Two Rivers between 1833 and 1837.

In concluding that subject lands in eastern Wisconsin and north-eastern Illinois had a fair market value of \$19,116,048.00 in February 1835, Mr. Winslow divided the tracts into nine categories each of which he valued as follows:

<u>Classification</u>	<u>Acreage</u>	<u>Value Per Acre</u>	<u>Total Value</u>
Milwaukee Development	2,560	\$250.00	\$ 640,000.00
Milwaukee Area	2,560	125.00	320,000.00
Potential Port Cities	10,240	100.00	1,024,000.00
Other Cities	5,120	26.00	133,120.00
River Corridors	160,704	13.00	2,089,152.00
Pinery Acreage	582,861	10.00	5,828,610.00
Oak Openings	726,810	5.00	3,634,050.00
Prairie	570,392	1.50	855,588.00
Other Lands	<u>3,061,019</u>	1.50	<u>4,591,528.00</u>
TOTAL	5,122,266		\$19,116,048.00

51a. Rakestraw Study.

A study entitled "Timber Descriptions and Lumber Volumes and Values", dated June 1974, by Dr. Lawrence Rakestraw, Professor of History and Lecturer in Forestry at Michigan Technological University, with assistance on map work and statistical data by Charles Scheffner and Stephen Lynch, ^{14/} was accepted in evidence at the valuation hearing. Dr. Rakestraw has been

^{14/} Charles Scheffner, who has a bachelor's and a master's degree in forestry, and who worked under the direction of and collaborated with Dr. Rakestraw in the preparation of Dr. Rakestraw's report, is a forester and student of forest history.

a consultant to the National Park Service. His study prepared for the plaintiffs in Dockets 15-C and 71 attempted to determine the volume of the merchantable white pine within the northern portion of subject lands, designated as the pinery, to find how many board feet of lumber this would make, and to determine the economic data which were relevant in considering the profit-making possibilities of the white pine industry in the area as of 1835.

Notes of survey, many of which were completed in 1835 were used to determine the volume of merchantable white pine in the portion of Royce Area 160 north of Sheboygan, that being the area identified as the pinery by Dr. Rakestraw. Although lands south of Sheboygan had some white pine, the denser more desirable timber tracts were in the northern portion of Area 160. In addition to describing land form (topography), minerals, water, soil, vegetation, and man-made objects, the survey notes list line trees (which fall on or very near the surveyed line) and bearing and witness trees (which help locate section and township corners), and record their specie, size, and location. The position of each tree referred to in the survey notes was located on a large grid system. The notes were sworn to and attested before submission to the Surveyor General of the United States.

According to Dr. Rakestraw's study, trees in the natural state form definite communities which are standard throughout a given area. Dr. Rakestraw used as an example forests in northern Wisconsin and Upper Michigan as to

which he testified that if hemlock, maple, and basswood are present, the forests will almost always also include about 500 board feet of white pine per acre. Data from the survey notes of subject pinery lands were extracted to prepare type maps which were used with census data to determine the volume of usable white pine saw timber on this land.

Dr. Rakestraw's study concluded that a total volume of 7,399,296,950 BF, (plus or minus 15%) of usable white pine saw timber was on the pinery in northern Royce Area 160 here involved. The total white pine volume would be closer to 15 billion than 7.4 billion board feet, but the loss which occurred when sawing the timber into lumber approximated 50%. Dr. Rakestraw allowed 25% in additional losses from damage in transportation and similar causes with a resulting 5.55 billion board feet net at the mill (7.4 billion board feet allows 50% loss in mill, multiplied by .75 remaining percent results in 5.55 billion board feet net).

Lumbermen began coming to the Green Bay area in Door County about the time the land was surveyed in 1834 and 1835. Land in the area was at first sold from the land office at Mineral Point for \$1.25 an acre. However, large quantities of timber were cut and taken without purchase of the land. Logging mills in the area were early located at Sheboygan River, Manitowoc, Two Rivers, and Kewaunee. These mill sites were in heavy stands of pine timber. Pine could be hauled directly to the mill, and Dr. Rakestraw estimated that the costs of logging, producing, and merchandising would not exceed \$5.25 to \$6.00 per thousand board-feet.

Depending on quality, prices ranged from \$8.00 per thousand board-feet for common to \$16 for first clear. Given a production cost of \$4 to \$6 per thousand board-feet, Dr. Rakestraw observed that the profit margin of the entrepreneur was enormous.

Dr. Rakestraw testified at the hearing (Transcript Vol. I at 122 et seq.) that in his report he listed three lumber mills in Royce Area 160 in 1835, but there were probably more. In his opinion the timber was not being produced exclusively for local use. Some lumber was reportedly shipped to Chicago, from as early as 1832 and thereafter through 1835 and 1836, where white pine sold at \$25-\$35 per M. Timber was also shipped to Chicago from the St. Joseph's River area, which was closer than Area 160 to Chicago. Chicago was a boom town, a growing lake port in 1835, but its rapid population increase only started about that time.

By 1840 prices in Chicago had changed - 1840 retail prices for pine were, clear, per M, \$18-\$20; merchantable, \$12-\$14. "Clear" was lumber without defects, without knots and without pit seams, wind shake, or other defects. Merchantable would have some knots but no defects which would affect the strength of the lumber. Chicago dealers were grading their lumber by 1840. Green Bay lumber commanded premium prices, above those of Kalamazoo, St. Joe and Grand River. An informed purchaser of timber land in 1835 would be aware of the fine quality of the timber in Royce Area 160 in estimating how much he was willing to pay for the lands.

51b. Tanner Report.

The plaintiffs in Docket 29-A submitted a study by Dr. Helen Tanner

entitled, Historical Report - Land Evaluation, Royce 188, 189, 190, in southwestern Michigan. Dr. Tanner, an ethnohistorian who has a doctorate in history and has taken graduate work in political science, economics, and related fields, has testified as an expert before the Commission in many proceedings. Her report is a history of southwestern Michigan with an emphasis on factors affecting the economic development of the region up to 1850. The focus is on the portions of St. Joseph's, Berrien, and Kalamazoo counties, Michigan, in which Royce Areas 188, 189, and 190 were located. (Royce Areas 188 and 190 are shown on Royce's map 1 of Michigan and Area 189 is shown on Royce's map 2 of Michigan.)

Under the Articles Supplementary of September 27, 1833 (7 Stat. 442), the plaintiffs ceded their lands in Michigan, totaling 104,960 acres, which comprise the following tracts: (1) Royce Area 188 with 10,240 acres consisted of four miles square at Notawasepe village, established under the Treaty of Chicago of August 29, 1821 (7 Stat. 218), located in present-day St. Joseph's County, Michigan, in the southwestern corner of Michigan; (2) Royce Area 189 was added to the Notawasepe reservation by the Treaty of St. Joseph of September 19, 1827 (7 Stat. 305). The tract contained 99 sections, 63,360 acres, situated in present-day St. Joseph and Kalamazoo counties; (3) Royce Area 190 was a tract of land on the St. Joseph River opposite the town of Niles, on which the villages of Topenebee and Pokagon were situated. It contained an estimated 49 sections of land, 31,360 acres, in Berrien County.

Preparations in 1825 to survey the road between Detroit and Chicago, which had long been an Indian trail between these points, was a stimulus to the settlement and development of southwestern Michigan. The Erie Canal was also opened in 1825 providing a direct route between the seaboard and the subject tracts. The improved transportation from the East Coast into southwest Michigan and the treaties ceding Indian lands in the area brought about a rapid population increase in the southern portion of Michigan during the 1830's. The population growth was confined almost entirely to the southern part of Michigan's lower peninsula. According to Dr. Tanner, in 1834, the population of southwestern Michigan, including the counties where Royce Areas 188, 189, and 190 were situated, was over 11,000 and increasing. She estimated that probably fewer than 200 Potawatomis remained in the region at the time.

The Michigan tracts which were ceded contained good to very good agricultural lands which were linked by transportation facilities to Detroit and Chicago. The best of the ceded lands were in Royce Area 190. Some of these were offered for sale as seminary (school) land at \$20 an acre, though the price was later reduced to \$12, then \$6 an acre, and if still unsold, it could be bought at 10 shillings or \$2.50 per acre under the preemption act. Sawmills and grist mills were built and operated on some of this land from and after 1836. Dr. Tanner found that contemporary writers valued lands like those in Area 190 at \$10 per acre. As early as 1836, the relatively high value of Berrien County

lands as shown by tax assessments representing perhaps one-half of the market value in comparison with the assessed value of Kalamazoo and St. Joseph County lands was mentioned. Dr. Tanner concluded that the lands in Royce Area 190 had a higher per-acre market value than did the lands in Royce Areas 188 and 189. In 1836, according to Dr. Tanner's report, the average assessed value per acre of land in Berrien County, where Royce Area 190 is situated, was \$4.27, for Kalamazoo County, where a part of Royce 189 was located, \$2.90, and for St. Joseph's County, where the rest of Royce Area 189 and all of Royce Area 188 were located, \$1.80. Dr. Tanner concluded that the value of Royce Area 190 lands on the evaluation date was \$10 an acre. Considering all relevant factors such as agricultural potential of the land, closeness to transportation, reports by contemporary writers as to the great profits made at resale of lands in the vicinity of the subject tracts after they had been bought from the United States at \$1.25 an acre, and the evidence of market value which may be ascribed to the above-reported assessed per-acre value in counties where Royce Areas 188 and 189 are located, Dr. Tanner concluded that the per-acre value of the lands in these areas was \$8 or \$9 an acre.

51c. Plaintiffs' Appraisal Report, Dockets 15-C and 71.

The plaintiffs in Dockets 15-C and 71 presented as their overall appraisal report a lengthy, well-documented valuation study of subject tracts by Dr. Roger K. Chisholm, associate professor of economics at Memphis State University and formerly professor of managerial

economics at Northwestern University. He is the author of a number of specialized economic treaties and papers and co-author of several books in his field of interest. He analyzed, summarized, and presented the data in the report from the viewpoint and background of an economic historian. He has served as an expert witness before the Indian Claims Commission in a number of previous cases.

Various factors affecting economic conditions and land prices on the evaluation date, including population, money supply and availability, exports, income, and government expenditures were discussed by Dr. Chisholm in his appraisal report. Among the most important of these were the following:

The United States went through an economic panic and recession in 1833, and a depression in 1834, but business revived in late 1834 and economic recovery was accompanied by a rapid rise in commodity prices, a great surge in land sales, and a foreign trade boom in 1835. Business activity was stimulated by such enterprises as the beginning of railroad construction and internal waterway projects, and the increase of public and private funds in many kinds of transportation improvements and facilities.

The public debt was wiped out (retired) during the years 1831-1835, i.e., the Federal Government ran a budget surplus. From the latter part of 1834 through the years 1835 and 1836, the country's economy

was prosperous. The population of the country was increasing during the years before and after the evaluation date. With the growth of the population and settlement of the country, an expanding money supply and an increasing number of banks providing banking services facilitated sales of land, along with many other activities which were part of the expanding economic and commercial development. Production from farms increased, exports expanded, income increased. Speculation in land including the public lands was active. All previous records of public land sales were broken in 1835 when 12.6 million acres of public lands were sold.

Not long after the evaluation date, land prices in the Illinois portion of subject tract ranged from \$1.25 to \$5.00 an acre for unimproved tracts without timber, and tracts with timber sold for three or four times as much. Higher prices were reported by contemporary observers for lands in and near Chicago, and near Navarino, Green Bay, Manitowoc, Sheboygan, Milwaukee, and Racine, in Wisconsin.

Much of Dr. Chisholm's analysis of land values in the subject tracts is based upon detailed consideration of a large amount of sales data. Data on sales of lands within subject tract, and of adjacent lands in Michigan similar to subject lands, were used to indicate changes in the price of lands between 1830 and 1835. The data considered included abbreviated abstracts of deeds showing the following information for each

deed: date, seller, buyer, consideration, consideration per acre, legal description, acreage, section, township, range, county, book and page of recording, and, if available, assessed value, assessed value per acre, and improvements, if any were shown. Dr. Chisholm excluded from the sales considered transactions indicating a forced sale (e.g. sheriff's sale), sales in which the last name of the seller and the buyer were the same (as these might indicate a close family relationship), and transactions in which no consideration was shown. He also tried to eliminate all but the first sale of each tract, and did not use sales of lands known and platted as town lots. (Transcript, Vol. 3, p. 93 et seq.). The individual sales transactions are identified in appendices to Dr. Chisholm's report showing, among other things, who bought and sold the land, dates of the deed, the recording date, the consideration, acreage, and description.

Plaintiffs' exhibit W-99 (Dockets 15-C and 71) is an affidavit by W. D. Davis, an appraiser, inter alia, and one of the principal partners of Appraisal Associates of Kansas City, Missouri, stating:

That under his direct supervision, abbreviated abstracts of deeds and samplings of mortgages were taken in the following counties and states for the periods shown:

<u>COUNTY</u>	<u>STATE</u>	<u>DATES</u>
Kenosha	Wisconsin	1843 through 1865
Racine	"	1836 " 1865
Washington	"	1839 " 1865
Ozaukee	"	1836 " 1865
Winnebago & Brown etc.	"	1837 " 1865
McHenry	Illinois	1839 " 1865
Lake	"	1840 " 1865
Jo Daviess	"	1828 " 1838

The affidavit stated further that 29,959 abbreviated abstracts of deeds were shown in the listings.

Dr. Chisholm and an assistant collected a similar body of data from counties in Michigan and Indiana regarded as having lands like those in the subject tract, and which were close to Royce Areas 188, 189 and 190. The counties, States, and dates covered are:

<u>COUNTY</u>	<u>STATE</u>	<u>DATES</u>
Allegan	Michigan	1835 through 1836
Berrien	Michigan	1831 through 1834
Cass	Michigan	1830 through 1835
LaPorte	Indiana	1831 through 1835
Ottawa	Michigan	1834 through 1836

The data were collected according to the conditions for including sales in the first sample, e.g. that transactions involving only nominal consideration (\$1.00 and other good and valuable consideration) were not recorded, and forced sales, sales in which the last name of the seller and buyer were the same, sales of town lots and tracts for which it was not possible to determine the acreage, were also excluded.

The Michigan and Indiana lands were chosen for comparability data because their soil, climate, and other characteristics were similar to subject tracts, because they were located close to Lake Michigan, were recently settled, were close to the lands here being evaluated, and some settlers on their way to subject tracts would have crossed the lands on which comparability data were taken and would be familiar with the market for lands of this type.

Hundreds of sales transactions were considered in making the study. These represented parcels of land actually sold, ranging in size from only

a few acres to almost 2,000 acres in one instance. Dr. Chisholm believed that the sales were representative of the lands in subject tracts. Prairie and timber lands occur in the sample. Lands near lakes and rivers as well as those at a distance from large bodies of water are included as are tracts adjacent to as well as distant from townsites. The data for land sales in Michigan and Indiana are shown below in Table 22, as modified by Table A. The table as modified summarizes sales made between 1830 and 1835. There were four sales involving 360 acres in 1830. By 1835 these had increased many times. Table 22 as modified also summarizes the mean and median prices at which land was sold during this period in the above-named Michigan and Indiana counties.

Dr. Chisholm's data showed that in 1834, prices had more than doubled since 1830, and in 1835, they were almost three times the 1830 level. Dr. Chisholm computed for the counties included in the study a weighted average of the median values for which the lands were sold. The values were weighted by the number of acres actually sold. The weighted average of the median sale value of lands in the transactions summarized in Table 22, as modified by Table A was approximately \$3.59 per acre.

Market sales of land in Royce Areas 160 and 187 were not recorded between 1830 and 1835 but sales in these areas which were recorded by and after 1836 are included in the analysis. Dr. Chisholm believed that both the level and trend in sales prices after 1836 should be approximately the same for the Illinois - Wisconsin lands as for the Michigan - Indiana

lands. For each of the Wisconsin and Illinois counties considered (Milwaukee, Washington, Ozaukee, Brown, and Racine, in Wisconsin, and Lake County, Illinois), the mean and median sale prices are shown in Table 23. The equivalent 1835 price is also shown to permit comparison of the data from different years. Dr. Chisholm found that the data on Wisconsin and Illinois sales showed that the trend of prices in each case continued upward through 1837, that from 1837 to 1840 there was a decline in land prices, and recovery began in 1841.

Dr. Chisholm considered that the sales data collected were the basis of determining a representative sales price, and assumed that knowledge of actual sales prices for similar and nearby land would be used by prospective purchasers to decide what to offer for the subject tract. Analysis of actual sales in the subject tract indicated the continuing trend of prices once the land reached the market.

The defendant objected to certain typographical and arithmetical mistakes in Table 22, and to the inclusion in the sales data of a number of sales transactions which were back to back sales, duplicate recordings, and some which contained apparently inaccurate land descriptions. The defendant objected also that Dr. Chisholm had not put into evidence the work sheets from which Tables 22 and 23 were constructed.

On the basis of the defendant's criticism of the inclusion, in the sales data used to compute mean and median prices, of duplicate listings of a single sale of some tracts and the resale of other tracts or of parts

of tracts, and miscellaneous objections such as the inclusion of two lots which, as described, would have been in Lake Michigan, Dr. Chisholm recalculated the mean and median prices after eliminating inaccurately described tracts, eliminating also duplicate and partial duplicate sales, and confining the transactions used to the first sale of the tracts.

On July 29, 1974, the plaintiffs' counsel in Dockets 15-C and 71 submitted 244 pages of Dr. Chisholm's computations, work sheets, and summaries showing the computation of the mean value per acre as the data were defined in his testimony at the hearing, the computation of the mean value per acre as the data were redefined, the computation of the median value per acre as the data were defined in his testimony at the hearing, and the median value per acre as the data were redefined. In explaining that reconsideration of the sales data to meet the defendant's objections provided no basis for modifying his conclusions in the appraisal report, Dr. Chisholm commented on and summarized the results of his recalculations with the observation that the changes in the data and the results from the correction of errors and redefining the sample were small, and, on balance, offsetting so that he found no reason to change the conclusion. The details of the changes and the basis for his conclusion are set forth in the following statement by Dr. Chisholm and the tables accompanying it.

Dr. Chisholm's Statement on changes in tabular summaries of sales data is as follows:

1) In the process of producing work sheets showing the methods of calculation employed, some errors in Tables 22 and 23 were detected. The first two pages are the corrected Tables 22 and 23 carrying their original table numbers and page numbers. In Table 23, 13 means or medians were corrected. Seven corrections resulted in higher figures while six corrections lowered the figures. In some instances, the 1835 equivalent was not changed and thus does not correspond to the corrected figures. In Table 22, nine means or medians were corrected. Two were adjusted downward, one cent an acre in one case and two cents an acre in the other. Seven were corrected upward by amounts ranging from three to 41 cents an acre. Thus, no significant changes are introduced by the correction of this collection of typographical and arithmetical errors.

2) Because Government Counsel noted instances of the same tract of land appearing more than once, the data were examined and such instances removed. It should be noted that in no instance were any transactions noted that could have been considered Trust or Mortgage Deeds. Some tracts were sold again within anywhere from one day to several years later. Only a very few were sold three times and one or two were sold four times in the period studied. In LaPorte County, some transactions were recorded twice because of the way the data were reported in the Recorder's Office. The two tracts of land shown in Lake Michigan were removed from the sample. Tables A and B which are included show the effects on the data of the removal of some transactions. Only the means or medians which were changed are shown in these tables.

Table B shows that of the 21 means displayed in Table 23, 16 were changed. Of these, nine were increased while only seven were decreased. Of the 21 median values per acre, only nine were affected by the change in the sample while 12 remained as they were. Of the nine changes, six were upward and only three were adjusted downward. Table A shows the changes in the data in Table 22. Two counties were not affected. There are 19 means and 19 medians in Table 22. Ten of each remained unchanged by the redefinition of the sample. Three means and three medians were increased. Six of each were reduced. The only significant change was the median value per acre in Berrien County in 1832 which changed from \$6.13 to \$2.50. Even though few acres were involved, there were no transactions in the intervening range so the magnitude of the change seems quite large even though adjacent in the ranking. In any event, the changes in the data and results either from correction of errors or redefining the sample are small and on balance offsetting so I see no reason to change the conclusion.

Table 22

Number of Transactions and Acres Sold, Mean and Median Sale Price for Land in Allegan, Berrien, Cass and Ottawa Counties, Michigan and LaPorte County, Indiana and Summary Total, 1830 to 1835.*

County (Michigan unless indicated otherwise)		Year					
		1830	1831	1832	1833	1834	1835
Total	Average	\$1.67	\$2.26	\$2.91	\$3.08	\$3.42	\$4.88
	Index	100.0	135.3	174.3	184.4	204.8	292.2
	Acres	360	2858.3	4774.2	8550.95	17009.2	22373.7
	Transactions	4	28	51	78	139	193
Allegan	Mean						\$7.47
	Median						\$6.25
	Acres						447.8
	Transactions						8
Berrien	Mean		\$1.81	\$5.47	\$3.22	\$2.92	
	Median		\$1.88	\$6.13	\$2.50	\$2.19	
	Acres		346	825.6	2070.35	5561.6	
	Transactions		5	12	19	41	
Cass	Mean	\$1.80	\$2.50	\$3.69	\$3.11	\$5.29	\$6.82
	Median	\$2.00	\$2.19	\$2.75	\$2.50	\$2.78	\$6.16
	Acres	200	1828.8	2355.4	2010.5	3728.4	1048.6
	Transactions	3	18	28	25	39	11
LaPorte	Mean	\$1.50	\$1.86	\$2.06	\$3.01	\$3.03	\$5.21
	Median	\$1.50	\$1.38	\$1.56	\$2.91	\$2.50	\$3.75
	Acres	160	683.5	1593.2	4419.1	6608.3	18274.1
	Transactions	1	5	11	34	58	166
Ottawa	Mean					\$1.98	\$1.79
	Median					\$1.98	\$1.04
	Acres					1080	2627.2
	Transactions					1	8

*A complete listing of all transactions appears in Appendix C.

[Ex. V-37-G]

Table A

		1832	1833	1834	1835
Allegan -- no changes					
Berrian	Mean	\$5.47	\$3.21	\$3.32	
	Median	\$2.50	\$2.50	\$2.50	
	Acres	825.6	1830.35	4113.7	
	Transactions	12	17	33	
Cass	Mean	\$3.77	\$3.01	\$3.72	\$4.97
	Median	\$2.55	\$2.19	\$3.13	\$5.00
	Acres	2115.4	1530.5	3240.9	728.6
	Transactions	26	21	32	8
LaPorte	Mean		\$2.93	\$3.10	\$4.44
	Median		\$2.50	\$2.69	\$3.13
	Acres		3589.2	4908.8	13425.5
	Transactions		28	43	130
Ottawa -- no changes					

[Ex. V-37-I, Dkts. 15-C, 71]

Table 23

Mean Consideration Per Acre by County, Current Dollar Price and
1835 Equivalent Price*

County		Date					
		1836	1837	1838	1839	1840	1841
Milwaukee	current	5.14	8.71	3.20	1.88	1.63	
	1835	4.51	7.05	3.75	1.68	1.72	
Washington	current		9.86	4.38	3.16	3.48	
	1835		8.57	3.98	3.67	3.58	
Ozaukee	current		4.95	3.18	3.80	2.17	
	1835		4.67	2.89	3.39	2.34	
Lake (Ill.)	current					1.12	2.33
	1835					1.17	2.52
Brown	current					2.09	4.35
	1835					2.20	4.73
Racine	current		4.17	5.21	4.73	3.85	
	1835		3.63	4.35	3.25	4.18	

Median Consideration Per Acre by County, Current Dollar Price and
1835 Equivalent Price*

County		Date					
		1836	1837	1838	1839	1840	1841
Milwaukee	current	8.33	9.00	4.01	1.25	1.46	
	1835	7.31	7.83	3.65	1.12	1.54	
Washington	current		5.00	3.75	5.00	2.50	
	1835		4.35	3.41	4.46	2.63	
Ozaukee	current		5.00	3.75	3.12	1.87	
	1835		4.35	3.41	2.79	1.97	
Lake (Ill.)	current					.92	1.52
	1835					.97	1.65
Brown	current					2.49	4.79
	1835					2.62	5.21
Racine	current		4.17	2.77	2.50	3.12	
	1985 [1835]		3.63	2.52	2.23	3.29	

*Adjustment to 1835 equivalent via Warren & Pearson Index of All Commodity Prices. 1835 = 100. Prices were higher 1836 - 1839 but lower in 1840 and 1841. The transactions used to construct these tables are shown in Appendix B.

Table B

	1836	1837	1838	1839	1840	1841
Milwaukee Mean	\$5.33	\$7.93	\$3.65	\$2.11	\$1.87	
Median			\$2.50		\$1.87	
Washington Mean		\$22.06	\$2.50	\$4.37	\$3.71	
Median		\$ 2.50	\$2.50		\$4.17	
Ozaukee Mean		\$4.37		\$3.51	\$2.20	
Median				\$2.50		
Lake, Ill. Mean						\$2.41
Median						\$1.62
Racine Mean			\$4.87	\$3.25	\$3.75	
Median			\$2.72	\$2.46		

[Ex. V-37-J]

In estimating the value of improvements to be deducted from the purchase price of lands, Dr. Chisholm used improvement costs which varied with the type of land involved. Thus, \$3.50 an acre was allowed for the cost of breaking and fencing and like improvements on cleared prairie lands used for agricultural purposes. In Royce Area 160, the value of clearing and fencing timber lands was \$1.87 an acre. The cost for clearing the subject lands south of the Sheboygan River was \$0.65 an acre. Substantial evidence indicates that, ordinarily, at least 20 days were required to clear an acre of prairie land. If a settler did nothing but clear land over an entire year, the amount of land that could be cleared would be limited. The steel plow had not yet been invented in 1835, and the lack of farm machinery and of labor restricted the quantity of prairie land which could be cleared to that which could be done by an ordinary entryman and his family.

Dr. Chisholm determined the value of the Michigan lands here involved, which were prairie and prairie-hardwood lands, by using the weighted average, \$3.59 per acre, of the median sale value from Table 22. The improvement cost for prairie-type lands of 83 cents (for cabins, fencing, and breaking) was divided in half, to 42 cents based on what Dr. Chisholm regarded as the very conservative estimate that one-half of the lands contained improvements. Since the average value of the improvements being sold was 42 cents an acre, the

fair market value of subject land in southwestern Michigan, Royce Areas 188, 189, and 190, would be \$3.59 less 42 cents, or \$3.17 per acre.

Dr. Chisholm used \$3.15 as the per-acre value in determining that the total value for the three tracts containing 104,960 acres was \$330,624.

On the west side of Lake Michigan, the Wisconsin and Illinois lands were divided into two parts for valuation. 1) The lands which were predominantly prairie with hardwood groves, referred to as prairie, included all of Royce Area 187, and the part of Royce Area 160 situated south of the Sheboygan River. For the prairie areas, the value of improvement costs was 83 cents. Again using one-half as an estimate of the amount of land which was improved, the value would be \$3.59 less 42 cents or \$3.17 per acre. \$3.15 was used as an approximate per-acre value of this land, a price which Dr. Chisholm found was consistent with the data in Table 23. The acreage of this portion of prairie-hardwood was 3,944,542. Dr. Chisholm found that its total value on the evaluation date was \$12,425,307.

2) The lands of the pinery north of the Sheboygan River were covered by stands of white pine and other trees. In timbered areas, the value of a cabin was 18 cents per acre and the value of clearing was \$1.87, a total of \$2.05 per acre for the value of improvements. Deducting the value of improvements from \$3.59, the per-acre value of comparable lands, cleared farm lands, would have a per-acre value of \$1.54. However, as the value of the land in the pinery was enhanced by the white pine, Dr. Chisholm explained his method of calculating the amount of that enhancement.

In evaluating the timber lands in the pinery, i.e., the lands in Area 160 from Sheboygan north to the tip of the Door Peninsula, Dr. Chisholm relied on Dr. Rakestraw's study. Dr. Chisholm pointed out that saw mills began operating along the western shores of Lake Michigan in 1835 and that lumber was reportedly shipped to Chicago from the Green Bay area as early as 1834. After the Indians ceded their title to the United States, prospective lumbermen were expected to wait until the land had been surveyed before cutting the timber. However, after 1830, it was apparently possible to obtain permits from the War Department to cut lumber, but commonly, timber was simply cut from the lands without authority, in trespass. Surveyors of the northern portion of much of Area 160 mentioned the fine stands of pine, and noted that a sawmill was in operation north of Sheboygan. Many eastern investors were attracted to the Wisconsin pinery by advertisements in eastern papers. Thousands of acres of Wisconsin land were taken up by easterners and other nonresidents between 1834 and 1839. Entries in Wisconsin could be made only through the Green Bay and Mineral Point Land Offices at the time. A substantial part of the land purchased by eastern investors was apparently acquired through the Green Bay Land Office and involved lands in eastern and southern Wisconsin which were surveyed between 1834 and 1839, among the first Wisconsin lands to be surveyed.

By 1839, commercial lumber operations in the pinery had expanded and the business of supplying lumber to Chicago began to assume magnitude.

In accordance with Dr. Rakestraw's study on the timber in subject pinery, Dr. Chisholm assumed that there were 5,500 board feet of white pine per acre in the stand and that white pine sold in Green Bay at an average of \$10.80 per thousand board-feet, but the price in Chicago in 1835 was more than twice as high. Dr. Chisholm estimated the gross value of the white pine at \$11 per thousand board-feet or \$60.50 per acre (\$11 times 5.5).

To determine the enhancement value of the pine, Dr. Chisholm used Dr. Rakestraw's logging and production costs at \$4.25 per thousand board-feet, and handling and merchandising costs at \$1.00 per thousand board-feet. Compensation for management was computed at \$1.75 per thousand board-feet (about four times that of skilled labor, which, according to Dr. Chisholm, is a proportion often observed). Profits, described as generally very high, were allocated 50% of the remainder, leaving \$2.00 per thousand board-feet as the net value of the pine timber. Using the average stand of 5,500 board feet, the net value of the white pine was \$2.00 times 5.5 or \$11.00 per acre. Assuming that 10 to 15 years would be used to harvest the trees, Dr. Chisholm used 12 years as the length of time involved. The value as of 1835 at a 5% discount rate would be \$9.51 per acre. The land value for farming, once cleared would be \$1.54 for a total of \$11.05. Dr. Chisholm concluded that the pinery land, enhanced by the pine was worth \$11.00 an acre. The total acreage of the pinery was 1,165,606. Its total value, Dr. Chisholm found was \$12,821,666.

In summarizing his appraisal, Dr. Chisholm mentioned briefly some of the general considerations affecting his conclusions. Among these were the fact that on the evaluation date, the population of the United States was growing, that this increased the demand for land and for the products of the land, and that settlers were moving into subject tracts at a rapid rate. These and other factors discussed above, particularly the specific conclusions stemming from the study of sales data and timber values were the primary considerations entering into Dr. Chisholm's appraisal of subject areas at \$25,577,597, or an average value of \$4.51 per acre. The total is arrived at as shown in Table 25 below.

Table 25

Acres, Per Acre Value, and Total Market Value of Tracts, 1835

Area	Acres	Per Acre Value	Total
R.A. 188, 189 & 190	104,960	\$3.15	330,624
Prairie-Hardwood	3,944,542	\$3.15	12,425,307
Timber-Pinery	<u>1,165,606</u>	\$11.00	<u>12,821,666</u>
	5,215,108		\$25,577,597

(Pls. Ex. V-37 at 186, Vol. II, Transcript of hearing, June 11, 1974 at 168.)

The prairie areas include all of Royce Area 187 which contains 3,480,052 acres. The area between the southern boundary of Royce Area 160 and the Sheboygan River as computed from the surveyors' plats was 464,490 acres. The pinery is all of the 1,630,096 acres making up the mainland and islands of Royce Area 160 less the 464,490 acres south of the Sheboygan River, or 1,165,606 acres.

51d. Defendant's Appraisal Report.

Dr. William G. Murray, a member of the American Institute of Real Estate Appraisers, and former economics professor at Iowa State University

prepared the defendant's appraisal report herein. Dr. Murray has made appraisals and published many articles and studies on land valuation, relating particularly to farm lands. He was chief economist of the Farm Credit Administration in 1935 and 1936, and has made 16 appraisals for use before the Indian Claims Commission, involving, for the most part, lands in Iowa, Kansas, Nebraska, and Missouri. Dr. Murray valued the 5,110,148 acres in Royce Areas 160 and 187 at \$3,070,000 or about \$0.60 an acre. He found that Royce Areas 188, 189, and 190 in Michigan containing 104,960 acres had a total value of \$115,500, a per-acre value of \$1.10.

Turning first to the Wisconsin and Illinois lands in Royce Areas 160 and 187, Dr. Murray pointed out that different types of land were involved, varying from the timbered northern Wisconsin lands to the fertile prairie lands of northern Illinois and the commercially important Chicago area with water frontage and fine harbor facilities extending along the western shore of Lake Michigan.

Dr. Murray emphasized that the northern part of Illinois was not settled as soon as the southern portion of the State, and that during the 1820's settlers migrated west into Missouri rather than into northern Illinois and Wisconsin. Dr. Murray chose as comparison areas lands in Michigan and in central to southern Illinois and Missouri in considering the demand for land in Wisconsin and Illinois on the evaluation date.

Dr. Murray relied on survey notes for descriptions of the physical characteristics of Royce Areas 160 and 187. He found that the soils ranged from excellent or first rate (about 25%) to second rate (about 25%) and some poor soils. The latter type occurred mostly in the northern part of

Area 160 where the timber was heavy. The topography of the lands ranged from level to gently rolling or rolling.

Areas 160 and 187 were well watered. In addition to fine rivers, streams and lakes, there were a good many springs, and, as has been previously mentioned, the western shore of Lake Michigan borders Areas 160 and 187 on the east, extending south from the islands off the northern tip of Door County, Wisconsin, to the northern edge of Chicago at what is now Evanston, Illinois. The survey notes frequently mentioned stone and limestone as construction material used by and available to settlers in plentiful quantities. The surveyors also noted many millsites in these areas. They were in demand on the evaluation date for grist mills to grind corn and wheat and for saw mills for lumber.

The survey notes indicated that there was good, commercial quality white pine timber in northern Wisconsin, e. g., in the area of Sheboygan. Dr. Murray stressed the fact that up to 1830, the direction of the population movement from the east coming by way of the Ohio River to the mid-west was north on the Mississippi to the Missouri River and then west on the Missouri River toward Kansas City rather than north into northern Illinois and southern Wisconsin (except for the lead mining settlements near Galena in northwestern Illinois and southwestern Wisconsin). However, this trend changed after the completion of the Erie Canal and the Indian cession of subject lands. After 1833, Chicago grew rapidly, as did Milwaukee, Racine, Kenosha, and other towns in subject tracts.

From his study of public land sales, Dr. Murray concluded that it would take a relatively long time, as long as twenty years, to resell

the large tract, Royce Areas 160 and 187, in small units to settlers. He also concluded that heavily timbered areas were much less attractive to settlers than were prairie lands with timbered areas close by. The market demand for lumber, according to Dr. Murray, was to supply local needs which were limited. He concluded that such local needs did not stimulate a demand to purchase the heavily timbered lands for sale at \$1.25 an acre. He found no special value for the heavily timbered Wisconsin lands from Sheboygan north, known as the pinery, largely on the ground that there was no immediate market for the lumber.

Dr. Murray recognized that the growth in population of Chicago from 1833 on through evaluation date, the rapid expansion of Chicago as a commercial and marketing center, and the increased traffic on Lake Michigan stimulated the settlement and demand for lands nearby in Royce Areas 187 and 160. However, in his opinion, the amount of such land having special value because of its location was small.

Dr. Murray concluded that the highest and best use for the lands in Royce Areas 160 and 187 was for farming. He chose as comparison areas lands in Michigan and in central to southern Illinois and Missouri in considering the development and demand for land on February 21, 1835, in Wisconsin and Illinois. These included lands in the Sangamon River area, Illinois, near Springfield, and the Illinois River area, near Peoria. In reaching his conclusion that the fair market value of the 5,110,148 acres in Royce Areas 160 and 187 on February 21, 1835, was \$3,070,000 or about \$0.60 an acre, Dr. Murray divided the lands into eight classes listed below which he appraised as follows:

1. Choice sites, harbors, town sites, quarries, etc.	50,000 acres at \$5.00 - \$250,000
2. Lands, including timbered areas, close to town sites, harbors, and navigable rivers, where local demand and short distance to river transport give location value.	150,000 acres at \$2.25 - \$337,500
3. Lands with good combination of timber and prairie, and fair location in relation to river transport.	1,000,000 acres at \$1.00 - 1,000,000
4. Lands with fair combination of timber and prairie, and fair location in relation to river transport.	1,500,000 acres at \$0.60 - \$900,000
5. Lands with poor combination of timber and prairie and poor location to river transport.	750,000 acres at \$0.45 - \$337,500
6. Lands with medium to heavy timber stands.	430,000 acres at \$0.35 - \$150,000
7. Lands with fair to poor timber stands.	430,000 acres at \$0.20 - \$ 86,000
8. Poor land, swamp, and marsh.	100,148 acres at \$0.10 - \$ 10,000
Total or Average	<u>5,110,148</u> <u>\$0.60</u> <u>\$3,071,500</u>

The three tracts located in southwestern Michigan, Royce Areas 188, 189, and 190, containing 104,960 acres, were located along the main road from Detroit to Chicago. In appraising the tracts, Dr. Murray compared sales and development of lands adjoining those being appraised. As with other lands in this proceeding, Dr. Murray found that settlers preferred lands with a combination of prairie and timber over those consisting of only one or the other.

On the basis of study of survey information of public land sales in nearby areas, of reference materials and other relevant information, Dr. Murray concluded that Royce Areas 188, 189, and 190 in southwestern Michigan, had a value of \$115,500, an average of \$1.10 an acre for the

104,960 acres on February 21, 1835. In the process of appraising the three tracts, Dr. Murray divided the lands into five classes. The names, acreages, and prices for each of these classes is shown below:

<u>Kind of Land</u>	<u>Acres</u>	<u>Price</u>	<u>Total</u>
1. Choice prairie-timber sites edge of prairie	3,000	\$5.00	\$15,000
2. Less desirable prairie-timber sites including oak openings (barrens)	5,000	3.25	16,250
3. Light timber areas including less desirable oak openings	48,000	1.30	62,400
4. Heavy timber areas, beech-maple types	40,000	.50	20,000
5. Wet, swampy, poor areas	8,960	.20	1,800
Total or average	104,960 acres	\$1.10	\$115,450

52. Value of Ceded Land.

On the basis of the matters discussed in our opinion, considering all of our findings herein and the entire record in this case, we find that the overall market value of subject land consisting of 5,115,908 acres in Royce Areas 160 and 187 in Wisconsin and Illinois, and 9 sections or 5,760 acres in Royce Area 148, Illinois, and also, 104,960 acres in Michigan was \$6,600,000 or about \$1.26 an acre on the evaluation date, February 21, 1835. In reaching this conclusion, we have considered that the subject lands consisted of slightly more than 3,100,000 acres of good farming land in the prairie-hardwood regions of the Great Lakes; that about a million acres were in the timber-pinery region of northeastern Wisconsin, most of which were potentially valuable for commercial lumber development;

that about 900,000 acres of the land contained excellent soils or consisted of oak openings, fine for crop cultivation; and finally, that about 200,000 acres of the land were situated in or near townsites, port cities, or consisted of important river-front acreage valuable for industrial or transportation purposes, or had other site advantages which enhanced the value of the land.

53. The Iowa Exchange Tract

Reports to the Commissioner of Indian Affairs from the commissioners for the Treaty of September 26, 27, 1833, and the message from President Jackson to the United States Senate transmitting the treaty, recommending that the Senate consent to its ratification, indicate that it was the intent of the treaty to acquire large, fertile, valuable tracts of land from the Indians, the land to be opened by the United States for development by settlers. The treaty commissioners described as part of the consideration, the allotment to the Indians of five million acres of land west of the Mississippi, the country assigned to them to be examined by representatives of the Indians.

During the treaty negotiations, the Indians were given to understand that they would secure a permanent home west of the Mississippi of as much and as good land as that which they ceded. At the time the treaty was ratified, the boundaries of the assigned tract had been modified from those originally described in the treaty. The lands in the exchange tract as originally described which were in Missouri were deleted and lands further north in Iowa were substituted instead.

The second article of the Treaty of September 26, 1833, provides that in part consideration for the cession under Article 1 the United States would grant to the said United Nation of Indians a tract of not less than 5,000,000 acres of land west of the Mississippi River. The boundaries of the tract, as set forth in the second article of the treaty, were altered by resolution of the United States Senate on May 22, 1834 (7 Stat. 447-48). The Indians did not consent to the alteration, but on October 1, 1834, urged that the boundaries be altered further to the following description:

Beginning at the mouth of Boyer's river; thence down the Missouri river, to a point thereon; from which a due east line would strike the northwest corner of the State of Missouri; thence along the said east line, to the northwest corner of said State; then along the northern boundary line of the said State of Missouri, till it strikes the line of the lands of the Sac and Fox Indians; thence northwardly along said line to a point from which a west line would strike the sources of the Little Sioux river; thence along said west line, till it strikes the said sources of said river; then down said river to its mouth; thence down the Missouri river, to the place of beginning:
Provided the said boundary shall contain five million of acres; but should it contain more, then said boundaries are to be reduced as to contain the said five million of acres. [7 Stat. 446, 447.]

The boundary changes thus proposed were adopted by Senate Resolution on February 11, 1835 (7 Stat. 447, 448).

In consideration of the boundary alteration, the United States agreed to pay \$10,000 for the benefit of the plaintiff, to pay \$2,000 to Gholson Kercheval, of Chicago, Illinois, for services to the plaintiff

during the war between the United States and the Sac and Fox Indians, and to pay George Walker \$1,000 for bringing Indian prisoners from west of the Mississippi River to Ottawa, Illinois. 7 Stat. 447-448.

Correspondence of Potawatomi leaders who had visited the Iowa exchange tract expressing their dissatisfaction with the tract is reprinted in S. Rep. No. 348, 24th Cong., 1st Sess. (1836). The correspondence indicates that the Indians objected to the lack of timber and to the remoteness of the northern portions of the Iowa tract, and thought that their land east of the Mississippi which they ceded in 1833 was better land than the exchange tract. Parts of this correspondence and a letter from a government interpreter accompanying an emigrating party of about eight or nine hundred Potawatomis from Chicago to the vicinity of Fort Leavenworth in April 1836 follows:

KICKAPOO VILLAGE, near FORT LEAVENWORTH,
Western Territory, November 20, 1835.

MY FATHER: I want to speak to you, and hope you will listen to me. When we came to this country we expected to live on the land on the Little Platte river, opposite to the Kickapoos. We did begin to settle on it, but the agent told us that arrangements had been made to give our tribe an equal quantity of land higher up the Missouri river, and that we could not be allowed to remain where we were settling; so we returned to the country of the Kickapoos. We do not like the country high up the Missouri river; wood is very scarce. We should be too near the Naudowises, Sioux, Pawnees, and other Indians, who we fear would be unfriendly and troublesome. The country is nearer to these tribes, and farther from the white settlements than we expected. We should be far removed from the Ottawas, who are our relatives, and from all the other tribes near whom we formerly lived.

MY FATHER: we wish you to tell us plainly whether we can get the land on the Platte, or not. If we cannot, then we hope you will pity us, and not compel us to live in the country high up the Missouri. Some of us and some of the Kickapoos, pray to the great Spirit. We were glad when we hoped to live on the Platte, because we would be all near to each other, and could all meet together every Sunday. Now I am sorry that we have to be separated.

MY FATHER: there is a good country on the Osage river, adjoining our kindred the Ottawas, and our old friends the Miamies and Shawanees, and not far from the Delawares and Kickapoos. I have seen it, and if we cannot get the land on the Platte, we wish you would give us land on the Osage river, in exchange for ours high up the Missouri. There are four hundred and fifty-four of us Pottawatamies here, on the land of the Kickapoos; some of us have been here three years, and some of us not so long. If you will allow us to settle on the Osage river, instead of the land high up the Missouri, we should be glad to hear you say so soon, for we are very anxious to get on to our own land. We have been told that the white people want the land on the Platte. If we were to settle on the Missouri above them, perhaps they would wish to extend their settlements there also. We understand that all the Indians towards the setting sun, from the State of Missouri, will be secured in their possessions by your strong arm, that you will put around them. This will be like a strong fence. My Father: we desire to be enclosed within the strong fence, and not left on the outside.

I have told these things to our agent, so that he might tell them to you, and acquaint you with our wishes by sending you this paper.

My Father: I should be very glad to be allowed to go and see you in your own house. I have many things to say to you, which I should like to tell you with my own mouth, that I might with my own ears hear your words.

QUISH-QUEH-LAH, his + mark,
Pottawatamie Chief.

To the President of the United States.

No. 3.

FORT LEAVENWORTH,
December, 1835.

To his Excellency Andrew Jackson, President of the United States:

GREAT FATHER: The men appointed to explore the country selected for the new home of the united nations of the Pottawatamie, Chippewa, and Ottawa Indians, have returned. We have talked with them, and send you the substance of their report.

Father: Your agents told us at the treaty made at Chicago, in 1833, that the country assigned to us west of the Mississippi was equally as good as the lands in Illinois, which we then occupied, and as well adapted to our situation. Trusting to their representations, we ceded our lands and hard as it was, were preparing to leave our old hunting grounds and the graves of our fathers for our new homes.

Father: We have been deceived, and feel disappointed and dissatisfied. We are told that our new country is mostly prairie, that there is scarce timber enough to build our wigwams, and that some of the land is too poor for snakes to live upon. Our men are not accustomed to the prairie: they have always lived in the woods.

Father: We are told, too, that there are no sugar-trees in our new country. In the country which we ceded to the United States there is an abundance of them. We understood that you wished us to become cultivators of the soil: some of our men desire to do so; but there is but little encouragement for them to become farmers in a country where there is so little timber and so much poor prairie.

Father: Do not think we wish to violate our treaty because we send you this letter. It is not so. We are not opposed to moving beyond the Mississippi. We are willing to go, and should now be ready to smoke our last pipe upon the site of our old wigwams, if our new country had been what it was represented to be, but we have been deceived in it.

Father: In order to satisfy our men and make them more contented, we ask to be allowed the exclusive possession, for the term of twenty years, of the north half of the strip of land surrendered by us to the United States, since the treaty of Chicago, for the benefit of Missouri. This would make our men more contented. We have said twenty years, because we hope in that time to become accustomed to the prairies, and able to relinquish it without inconvenience. We would also say that, in this country there are sugar-trees, but none in the country selected for us. This country, too, is better adapted to agricultural purposes than our own.

Father: We are told that game is now abundant in our new country; but as the game is mostly confined to the timber, we fear that in a few years, when it has been hunted, that it will be scarce, and we should be forced to rely upon agriculture for our support. This strip of land lies on the south part of our new country. Our neighbors on the north are numerous and powerful, and we know not what feelings they may entertain toward us; but we hope, before the twenty years are elapsed, to cultivate their friendly acquaintance. On account of the scarcity of provisions on the Missouri, the agent in charge of our removal has located us on the public land, reserved for Indians, east of Fort Leavenworth, here we expect to remain until joined by our people.

Father: We know that you feel friendly towards us, and wish to consult our best interests: we thank you for it, and we hope that you will now lay our case before the councils of your great nation, and use your influence to procure this small boon. And may the Great Spirit bless you for it.

WAB-SAI, his x mark.
 MIX-E-MAU, his x mark.
 SHE-MA-GAU, his x mark.
 WASH-ES-KUCK, his x mark.
 NE-COND-KE-SICK, his x mark.
 MO-SWA-NA-WHA, his x mark.
 SAW-KO-NASH, his x mark.

In presence of--

H. DODGE, COLONEL OF U.S. DRAGOONS,
 witness to the signature of the first seven chiefs.
 D. HUNTER,
 CAPTAIN DROG,
 THOMAS SWORDS, Lieutenant of Dragoons.
 ANTHONY L. DAVIS, Assistant Agent to Pottawatamies.

Washington, D. C., April 23, 1836.

SIR: I have the honor of acknowledging the receipt of yours of the 22d inst., asking such information as I possess, relative to the wishes of the Pottawatamie Indians, who have removed, or who contemplate removing from the States of Indiana and Illinois, to the west side of the Mississippi, &c., to which I respectfully answer.

In the fall of 1835, I accompanied, in the capacity of interpreter, in the employ of Government, an emigrating party of Pottawatamies, from within the Chicago agency to the vicinity of Fort Leavenworth, on Missouri river. I believe there were eight or nine hundred started with us from Chicago, and out of that number, only three hundred reached the place of destination, who stopt within six miles of Fort Leavenworth, in Little Platte country. The balance of the number separated from us after a few days' journey, preferring to go on their own way, that they might hunt as they went. They crossed the Mississippi river in the vicinity of Rock island, and they were to winter two or three days' journey from Mississippi river, and after making sugar this spring, they were to go on to Platte country, and join that party who stopt there last fall.

In the spring of 1835, an exploring party was sent out under the care of Captain Gordon, to examine the country given them by the treaty of Chicago, in 1833; they returned a few days before the emigrating party started from Chicago, and reported that the country was not suitable for them on account of the timber being so scarce, and that the country was more remote than they expected. For the two above reasons, there was a great deal of unwillingness manifested and expressed both by those who have emigrated, and those who contemplate removing hereafter, to go on that country which they obtained by the treaty of Chicago. Therefore, in a council held on the Mississippi river, (on our way,) it was there agreed to send a delegation to Washington the past winter, for the purpose of obtaining a permission from the General Government to settle on the Little Platte country, for the term of twenty years, till they could make an arrangement or find a country suitable for them.

In compliance with the decision of that council, the delegation (for whom I came as interpreter) came here the last winter, but failed in their object. The delegation left this city (I being detained by sickness) with no further encouragement than that they might remain in their present encampments for a while. I am safe, sir, in saying, that a general and a decided unwillingness prevails amongst them to locating on the lands assigned them by the treaty of Chicago in 1833; and their wish is now to find a country suitable for them.

Respectfully, your most obedient servant,

L. RICE.

HON. JOHN TIPTON,
United States Senator.

54. Boundaries, Iowa Tract.

In Prairie Band of Potawatomi Indians v. United States, Dockets 15-J and 71-A, 4 Ind. Cl. Comm. 409, 424, supra, the Commission found that the boundaries of the 5-million acre tract of exchange land in Iowa, as amended and agreed to by the treaty parties to exclude from the exchange area all land in the State of Missouri, were intended to extend northward from the Missouri-Iowa boundary a sufficient distance to include 5 million acres. The boundaries, as described in the amended treaty, are those shown on Royce's map, Iowa 2, as cession No. 265. However, these boundaries embraced more than 7 million acres. The Commission found that the 5 million acres granted to the United Nation are in the southern portion of that tract with the northern boundary at approximately the 42nd parallel of latitude. In the 1956 proceeding, the Commission determined the value of the Iowa exchange tract (and of the Osage River tract in Kansas which is not involved in subject proceeding) as of June 5, 17, 1846, following a valuation trial thereon. Id. at 450.

The exchange land consists of 5 million acres in the southwestern corner of Iowa. It is the southern portion of Royce Area 265. The western boundary of the tract is the Missouri River, except for a short distance in the north west, and the tract's southern boundary is the southern boundary of Iowa. It is bounded on the north by the 42nd parallel, on the west by the Missouri River, on the south by the Missouri-Iowa boundary line. It includes all of Fremont, Page, Taylor, Mills, Montgomery, Adams, Pottawatomie, Cass, and Shelby counties, and

parts of Mono^{na}, Crawford, Carroll, Audobon, Adair, Harrison, Union, and Ringgold counties.

Among the rivers in the tract are the Boyer, the West Nishnabotna, the East Nishnabotna, the West Nodaway, and the Platte.

55. Physical Characteristics.

Appendix B in Dr. Murray's appraisal report herein contains the summaries or general descriptions which government surveyors noted after surveying 60 miles of section lines inside each township. For the townships having no general descriptions, the summary observations of the surveyor at the end of each mile were included.

The exchange tract was surveyed at various times between 1849 and 1853. Most of the land had first or second rate soils, was well-watered with rivers and streams, and, except that it lacked timber, was good farming country. At the time of survey, some timber occurred in patches, mostly along water courses. Surveyors remarked that the scarcity of timber would make farming difficult in some portions of the tract.

The remains of Indian camps were noted by the surveyors as late as 1850. Settlers had not moved into the area and were not occupying it in any numbers at the time of survey.

The land was level to rolling for the most part, but was hilly and rough along the Missouri River bluffs.

Other evidence confirms surveyors' observations referred to above that the soil in the Iowa exchange tract was first rate in large part, interspersed with some second and third rate land. In addition there

were some areas of poor drainage and some steep regions in the northwest portion of the tract.

Annual precipitation in the area of the Iowa tract, 28 to 34 inches, is somewhat less than that in the area of the ceded lands. A purchaser of the Iowa tract would be aware that crop failure due to lack of rainfall might be more of a threat in the area of the Iowa exchange tract than of the ceded lands. However, the climate in the area of the exchange tract was generally favorable to farming, and to raising grain, and livestock.

The exchange tract was not known to contain valuable minerals in 1835. It had not been cultivated or developed for farming, but its best potential use was for farming, the growing of grain crops, and the production of livestock. Prairie Band of Potawatomi Indians, supra, at 437. Notes of survey of the tract and other evidence indicate that timber was scarce. Id. at 436.

56. Royce Area 262.

In Iowa Tribe v. United States, Docket 153, 22 Ind. Cl. Comm. 385 (1970), evaluating Royce Area 262, the tract east of Area 265, that tract was divided into 262 South and 262 North. Area 262 South, which was ceded by the Iowa Tribe, was valued as of February 28, 1839. It consisted of almost 4 million acres in the southwestern portion of Area 262. Area 262 land was somewhat more favorable for farming than was the exchange tract. Timber was more plentiful and rainfall somewhat greater in Area 262 South than on the exchange tract. Id. at 396-97.

In the Iowa Tribe case (Id. at 397), the Commission found that the settlers in Area 262 South, immediately east of the exchange tract, preferred lands with some timber, and that most townships had some timber. The Commission determined also that a purchaser would know that eastern Iowa lands had advantages over the more western lands such as those in Area 262. Many of the eastern lands bordered the Mississippi River or were closer to it than were those in Area 262. The Mississippi was then an important commercial route for the transportation of persons and produce in that region of the country. Eastern Iowa had more timber, a real advantage for settlers, and a slightly longer growing period for crops, but there was little difference in soils of the two regions. Id. 403.

Lands within the exchange tract were untilled, having been used primarily for hunting on the evaluation date. Generally, the tract was not suitable for growing crops until the surface had been broken by plows. Thick and deep roots of the prairie cover prevented any substantial amount of cultivation without plows.

In Prairie Band of Potawatomi Indians, supra, at 438, the Commission found that around 1846 improved farm machinery such as crude plows operated by horses or oxen were becoming available. However, the steel plow was not in use in 1835.

Preparing prairie land for cultivation was a difficult, time-consuming task. Thickly interwoven roots of prairie grasses were so tough that the sod

could not be broken with ordinary plows but required special breaking plows. Such plows were unwieldy and massive, requiring five or six yokes of oxen to draw them. The largest of these plows turned a furrow of only about 30 inches.

57. Conditions Affecting Settlement.

A discussion of the settlement of prairie and subhumid lands by pioneers from the eastern part of the country in Climate and Man, Yearbook of Agriculture, 1951, observed that in settlements of the open prairie, the lack of timber, which had been plentiful in the humid east, and which the settlers relied on extensively, was a serious detriment. Timber was used to build houses, barns and other buildings. It had furnished fuel and fencing materials, tools, and household furnishings. Wooded areas and forests also sheltered many animals which supplied food and furnishings for the settlers.

In finding no. 29 in Iowa Tribe, supra, the Commission concluded that as of February 28, 1839, a purchaser of Area 262 South could not have anticipated rapid settlement of the Area. Immediately to the west lay several million acres (Royce Cessions 151 and 265, which overlap to a large extent) which were used for hunting by the Yankton Sioux, Omaha, Otoe, Iowa, and Sac and Fox. In addition the United Nation of Chippewa, Ottawa and Potawatomi had been granted a 5 million acre tract of this land in 1833.

In Otoe and Missouri Tribe v. United States, Docket 11-A, 5 Ind. Cl. Comm. 316 (1957), aff'd. in part here pertinent, 175 Ct. Cl. 564 (1966), the Commission found that under the Treaty of July 15, 1830,

proclaimed February 24, 1831 (7 Stat. 328), with the Otoes and Missouriia, the Iowas, the Omaha, the Confederated Tribes of the Sacs and Foxes, and the Bands or Tribes of the Medawa Kanton, the Wahpacoota, Wahpeton, and Sisseton Sioux, the participating Indians ceded and relinquished their right and title to part of Royce Area 151 containing approximately 11 million acres along the Missouri River and streams feeding into it in western Iowa and northern Missouri, and including a small triangular-shaped area in southwestern Minnesota. The cession was qualified by a provision that the ceded lands were to be assigned and allotted under the direction of the President of the United States to the tribes then living thereon or to such other tribes as the President might locate thereon for hunting and other purposes.

The Commission found (finding no. 46 in Otoe and Missouri Tribe, supra at 343-45) that the United States intended to allot the area as a common hunting ground and to prevent further warfare and enforce peace among the tribes using the area by defining boundaries between them.

The Commission further found that by the Treaty of September 26, 1833, as proclaimed with amendments of February 21, 1835 (7 Stat. 431, 447-48), the United States made an outright grant to the United Nation of Chippewa, Ottawa, and Potawatomi Indians of a tract of 5 million acres within the 151 area south of the Yankton line and immediately north of the boundary line between Iowa and Missouri. See Yankton Sioux Tribe v. United States, 175 Ct. Cl. 564, at 569-572 (1966), aff'g Commission

order of November 25, 1959, in Dockets 11-A, and 138, fixing the location of part of the Yankton line; and rev'g the Commission in part not here pertinent in Dockets 142, and 359-363, and 332-A, 10 Ind. Cl. Comm. 137 (1962).

The Treaty of July 15, 1830 (7 Stat. 328), under which several tribes ceded the Iowa exchange tract and adjoining lands, qualified the cession with the provision that the tribes which were then living on the lands were to receive assignments or allotments under the direction of the President, and that the President might locate other tribes thereon for hunting and other purposes. The tribes participating in the Treaty of July 15, 1830, ceded their interests in the tract a number of years after February 21, 1835, the evaluation date herein. The cession dates of these interests, as found by Commission order of November 29, 1957, in Dockets 11-A and 138, were as follows:

The Iowa Tribe ceded its interest in the exchange tract on November 23, 1837 (7 Stat. 547), effective February 16, 1838. The Sac and Fox Tribe ceded its interest in the Iowa exchange tract by the treaties of October 21, 1837 (7 Stat. 540, 543), effective February 16, 1838. The Otoe and Missouri Tribe ceded its interest in the exchange tract by Treaty of March 15, 1854 (10 Stat. 1038), effective April 17, 1854, and the Omaha Tribe ceded its interest in the exchange tract by the Treaty of March 16, 1854 (10 Stat. 1043), effective April 17, 1854.

The fact that tribes other than the plaintiffs had treaty claims to the exchange tract, which were not extinguished until long after the evaluation date, affected the market value of the tract on evaluation date, when the tract became subject to the plaintiffs' rights under the Treaty of September 26, 27, 1833. The United States prohibited acquisition of title to land subject to Indian treaty and occupancy claims, and settlers did not ordinarily move into such areas. The length of time elapsing before a tract would become available for resale to settlers would be expected to increase with each additional treaty claim for the land. Opening the land for resale was precluded as long as substantial Indian occupancy claims or treaty rights were outstanding, and clearing the land of such claims often required time-consuming negotiations.

58. Accessibility.

In findings 42 and 43, Prairie Band of Potawatomi Indians, supra, the Commission found that although steamboats were plying the Missouri River in 1846, shipping at that time (eleven years after the valuation date for the lands here involved) was subject to hazards of swift currents, shifting sand bars, seasonal low water, and winter ice. Despite navigational difficulties, it was an important waterway. However, there were no tributaries flowing through the Iowa tract into the Missouri River which were large enough to carry steamboats. Water transportation was necessary to transport supplies to the tract from any distance.

There were no prospects of railroads on or near the exchange tract in February 1835.

The lack of accessibility of the Iowa tract to commercial markets and populated areas of the country and to settlers using the ordinary routes of travel was an important factor in determining the fair market value of the land. Lands which were closer to populated areas and established markets, and lands which were readily accessible to settlers were in greater demand and had a higher market value than were remote areas. Our findings on transportation and on the economic development of the Wisconsin, Illinois, and Michigan ceded lands, and comparable data regarding the Iowa exchange lands, indicate that the Iowa lands were so much less accessible to settlers and established markets in the north and east than were the ceded lands as to make comparison difficult. The Commission concludes that a discount for remoteness of the exchange tract, amounting to 25% is appropriate in determining properly the effect of the lack of accessibility of the tract on its fair market value.

59. Interest Rates.

Interest rates about the date of the evaluation, February 21, 1835, on loans to settlers on the frontier with little or no security ranged from ten to fifty per cent. (Lenders would buy the desired land, resell it for \$1.75 instead of \$1.25 per acre to settlers who needed to borrow, and, by "re-sale", avoid maximum interest rate laws.) These were called time price sales. Banks sprang up rapidly in frontier areas as lands were opened. Interest on loans to land purchasers ranged from 12 to 50 per cent and from 10 to 18 per cent on established agricultural projects.

In 1837 in the upper Mississippi Valley, interest rates on large sums ranged from 10 to 20 per cent, and, on small sums, up to 36%. At land office sales interest on small sums ranged from 60% per annum to 10 per cent a month.

In Prairie Band of Potawatomi Indians, *supra*, at 440-41, the Commission found that although the legal maximum interest rate in Iowa in 1846 was 10% per annum, rates as high as 40% were common in selling land to settlers in small tracts, various devices being used to get around the legal ceiling.

In the instant case, a purchaser of the Iowa exchange tract would have been losing between an 8 and 18 per cent return on his own money for all the years (see below) the land would have to be held prior to resale. If any money were borrowed to pay the purchase price in 1835, or for carrying costs, this would have required interest payments of from 10 to 18%. Such costs for financing and holding land until it could be sold to settlers or other users requires that the fair market value in 1835 be discounted from what the Commission found it to be in 1846, i.e., from 75 cents an acre.

60. Rate of Settlement.

Between 1848 and 1854 lands within the Iowa exchange tract were surveyed and offered for sale in the order in which the Surveyor General believed they would sell most quickly. None of the land was sold until 1853 and then, of the almost 3 million acres offered for sale, less than 6% was sold. It was not until 1855, when a great many new warrants were available to use in lieu of cash for paying for the land that half of the Iowa exchange tract was sold. Much of the acreage was paid for by warrants rather than cash. 4 Ind. Cl. Comm. at 445-48.

The Commission found that a small proportion of the exchange tract lands were disposed of in 1853, but substantial amounts of the land were not sold until 1855 and 1856. Practically all of the land in the tract had been sold by 1862. Prairie Band of Potawatomi Indians, supra, at 445. Considering all of the circumstances discussed herein relating to resale of the subject tracts, we conclude that an informed and willing purchaser would be warranted in estimating in 1835 that the shortest time the exchange tract would have to be held with almost no income would be 20 to 25 years. In our view, interest on funds to finance such a purchase would be at least 10%.

61. Defendant's Appraisal of Exchange Tract.

Upon consideration of the physical characteristics of the Iowa exchange tract and other factors and conditions affecting land values in southwestern Iowa in February 1835, Dr. Murray appraised the 5-million acre exchange tract at \$1,300,000 or 26 cents an acre as of February 21, 1835, in this proceeding. However, on the basis of this Commission's determination of September 19, 1956, in Dockets 15-J, 71-A, et al. in Prairie Band of Potawatomi Tribe v. United States, supra, that as of June 5 and 17, 1846, the land in the exchange tract was worth 75 cents an acre, amounting to \$3,750,000 in all, Dr. Murray increased his valuation of the exchange tract to \$2,150,000 or 43 cents an acre as of February 21, 1835.

Conclusory Findings -- Iowa Exchange Tract.

The portion of Royce Area 265 here under consideration was valued as of June 1846, in the Commission proceeding valuing lands ceded by the Potawatomi Nation under the Treaty of June 5, 17, 1846 (9 Stat. 853), including the Iowa tract here involved. Prairie Band of Potawatomi Indians, Docket 15-J, supra, Economic, social, and political factors affecting the values of western Iowa land in 1846 presumably differed from the corresponding conditions on the evaluation date more than eleven years earlier in 1835. However, most of the physical data on the land would not have changed or be affected by the time difference. Dr. Murray, defendant's appraiser herein, was also appraiser for the defendant in the evaluation proceeding involving the Treaty of June 5, 17, 1846, in the Prairie Band of Potawatomi Indians, supra.

1. The Commission may take judicial notice of its findings in the Prairie Band proceeding, supra, regarding the basic physical conditions of the tract which presumably would not have changed in the 11-year period between 1835 and 1846, and therefore would be relevant to a determination of fair market value in February 1835. Further, the Commission may take judicial notice of treaties and agreements of the United States with other groups of Indians relating to the use and disposition of subject exchange lands in western Iowa. The Commission may also take judicial notice of its determinations in evaluation proceedings relating to lands close to the exchange tract at times near

the 1835 evaluation date here involved which touched on political, economic, and social conditions, such as the opening of nearby lands to settlers and the movement of settlers into such lands.

After considering the matter, we conclude that there is sufficient data in previous Commission determinations, added to the evidence offered herein, to determine the value of the exchange tract in February 1835. The general economic, social, and political factors influencing market value in 1835 are in evidence here, as is a separate appraisal report on the Iowa exchange tract.

2. Value of Exchange Tract.

Considering all of the facts and circumstances discussed herein, the findings in this proceeding, and the entire record in this case, and considering the remoteness of the Iowa exchange tract from transportation routes and markets, the fact that a number of Indian tribes in addition to plaintiffs herein had treaty claims to the land on the evaluation date, and that there were large acreages of excellent land with resources superior to those of the exchange tract immediately available for purchase and development at the time, we conclude that the fair market value of the Iowa exchange tract on February 21, 1835, was \$1,500,000, or thirty cents an acre.

62. Further Treaty Consideration.

Treaty consideration for the cession of Royce Areas 187 and 160, in addition to the exchange land of 5,000,000 acres, as amended and ratified by the Senate, was as follows:

The United States agreed (7 Stat. 432-33) that representatives of the plaintiffs should visit the exchange land west of the Mississippi

and that the United States would pay the expenses of such a deputation:

. . . to consist of not more than fifty persons, to be accompanied by not more than five individuals to be nominated by themselves, and the whole to be under the general direction of such officer of the United States Government as has been or shall be designated for the purpose.--And it is further agreed that as fast as the said Indians shall be prepared to emigrate, they shall be removed at the expense of the United States, and shall receive subsistence while upon the journey, and for one year after their arrival at their new homes.--It being understood, that the said Indians are to remove from all that part of the land now ceded, which is within the State of Illinois, immediately on the ratification of this treaty, but to be permitted to retain possession of the country north of the boundary line of the said State, for the term of three years, without molestation or interruption and under the protection of the laws of the United States.

Article 3d--And in further consideration of the above cession, it is agreed, that there shall be paid by the United States the sums of money hereinafter mentioned: to wit,

One hundred thousand dollars to satisfy sundry individuals, in behalf of whom reservations were asked, which the Commissioners refused to grant: and also to indemnify the Chippewa tribe who are parties to this treaty for certain lands along the shore of Lake Michigan, to which they make claim, which have been ceded to the United States by the Menominee Indians--the manner in which the same is to be paid is set forth in Schedule "A" hereunto annexed.

One hundred and fifty thousand dollars to satisfy the claims made against the said United Nation which they have here admitted to be justly due, and directed to be paid, according to Schedule "B" hereunto annexed.

One hundred thousand dollars to be paid in goods and provisions, a part to be delivered on the signing of this treaty and the residue during the ensuing year.

Two hundred and eighty thousand dollars to be paid in annuities of fourteen thousand dollars a year, for twenty years.

One hundred and fifty thousand dollars to be applied to the erection of mills, farm houses, Indian houses and blacksmith shops, to agricultural improvements, to the purchase of agricultural implements and stock, and for the support of such physicians, millers, farmers, blacksmiths and other mechanics, as the President of the United States shall think proper to appoint.

Seventy thousand dollars for purposes of education and the encouragement of the domestic arts, to be applied in such manner, as the President of the United States may direct. . . .

Four hundred dollars a year to be paid to Billy Caldwell, and three hundred dollars a year, to be paid to Alexander Robinson, for life, in addition to the annuities already granted them--Two hundred dollars a year to be paid to Joseph Lafromboise and two hundred dollars a year to be paid to Shabehnay, for life.

Two thousand dollars to be paid to Wau-pon-eh-see and his band, and fifteen hundred dollars to Awn-kote and his band, as the consideration for nine sections of land, granted to them by the 3d Article of the Treaty of Prairie du Chien of the 29th of July 1829 which are hereby assigned and surrendered to the United States.

Article 4th--A just proportion of the annuity money, secured as well by former treaties as the present, shall be paid west of the Mississippi to such portion of the nation as shall have removed thither during the ensuing three years.--After which time, the whole amount of the annuities shall be paid at their location west of the Mississippi.

A supplemental statement dated September 27, 1833, 7 Stat. 441, signed by the treaty commissioners and a number of chiefs and headmen on behalf of the United Nation of Indians witnessed that in accordance with the third Article of the Treaty of September 26, 1833, there had

been purchased and delivered at the request of the Indians goods, provisions, and horses to the amount of \$65,000, leaving the balance of \$35,000 to be supplied in the year 1834.

The following consideration was promised under the Articles Supplementary, as amended and ratified:

Article 2d--In consideration of the above cession, it is hereby agreed that the said chiefs and head-men and their immediate tribes shall be considered as parties to the said treaty to which this is supplementary, and be entitled to participate in all the provisions therein contained, as a part of the United Nation; and further, that there shall be paid by the United States, the sum of one hundred thousand dollars: to be applied as follows.

Ten thousand dollars in addition to the general fund of one hundred thousand dollars, contained in the said treaty to satisfy sundry individuals in behalf of whom reservations were asked which the Commissioners refused to grant;--the manner in which the same is to be paid being set forth in the schedule "A," hereunto annexed.

Twenty-five thousand dollars in addition to the sum of one hundred and fifty thousand dollars contained in the said Treaty, to satisfy the claims made against all composing the United Nation of Indians, which they have admitted to be justly due, and directed to be paid according to Schedule "B", to the Treaty annexed.

Twenty-five thousand dollars, to be paid in goods, provisions and horses, in addition to the one hundred thousand dollars contained in the Treaty.

And forty thousand dollars to be paid in annuities of two thousand dollars a year for twenty years, in addition to the two hundred and eighty thousand dollars inserted in the Treaty, and divided into payments of fourteen thousand dollars a year.

Article 3d--All the Indians residing on the said reservations in Michigan shall remove therefrom within three years from this date, during which time they shall not be disturbed in their possession nor in hunting upon the lands as heretofore.

A supplemental statement dated September 27, 1833, 7 Stat. 444-45, signed by the Treaty commissioners and a number of chiefs and headmen for the United Nation of Indians witnessed that in accordance with the Articles Supplementary of September 27, 1833, there had been purchased and delivered, at the request of the Indians, goods, provisions, and horses amounting to fifteen thousand dollars, leaving the balance of ten thousand dollars to be supplied thereafter.

Evidence in this record does not include itemized lists of the goods and provisions furnished to the Indians under this provision or the provision in the Treaty of September 26, 1833, to furnish goods and provisions worth \$100,000.

Consideration under the Treaty of September 26, 1833, included several stipulations for the payment of money. The President's message recommending consent to ratification of the treaty referred to the stipulation in the third article which provided for grants to satisfy claims for reservations and for debts due from Indians, and conditioned his recommendation that the treaty be approved on the appointment of an agent to investigate the justice of the claims. Any claim which, after investigation, was found not warranted, would belong to the Indians.

The Senate consented to ratification of the treaty on condition, inter alia, that the schedule of Indian debts to be paid under the treaty be examined and approved by a commissioner appointed by the President, and only such sums were to be paid as were found to be justly due by the

commissioner. The sum to be paid was not to be increased in any instance, and if any amount was saved by deduction or disallowance of the debts to be paid, the amount so saved was to be paid to the Indians. (7 Stat. 447.)

The sums to be paid to Billy Caldwell and Alexander Robinson listed in Schedule A of the Treaty of September 26, 1833, were lowered from ten to five thousand dollars by Senate amendment. In addition, the fifth article of the Treaty of September 26 and the fourth article of the articles supplementary were deleted by Senate amendment. 7 Stat. 447. The deleted provisions would have secured grants of land under earlier treaties to individual Indians.

63. Expenditures not Made Definite by Treaty.

The 10th article of the Treaty of August 7, 1868, with the Potawatomi Indians (15 Stat. 536) required the appointment of commissioners to investigate and report on the claims of the Potawatomis. The report of the commissioners was printed as H.R. Exec. Doc. No. 61, 40th Cong. 3d Sess. (1869). The report, in evidence in a number of proceedings before the Commission, contains separate schedules for each treaty with the Potawatomis showing the date and amounts disbursed and to whom payments were made, and identifying the treaty provision which the disbursement was intended to fulfill. The schedules were prepared on the basis of reports of the Second Auditor's office, Treasury Department, of the Indian office, and

Congressional records. The Commission takes judicial notice of this document in determining prima facie amounts which the United States spent in satisfying its obligations under the Treaty of September 26, 1833, which were not made definite in the treaty, such as the total amount paid for life annuities for individual leaders. Pottawatomie Nation of Indians v. United States, 205 Ct. Cl. 765, 502 F.2d 852 (1974).

Neither the expenses of the deputation (exploring party), nor the amounts listed under the single heading in the G.A.O. report, "Removal and Subsistence Costs" were itemized in the evidence herein. The items purchased for similar expeditions and removals made about the same time consisted, for the most part, of food, some clothing and blankets, a few medical supplies, wagons, horses, harness, axes, and like items.

Removal of some of the Potawatomis was by military escort or force. Representatives of the Army sometimes contracted with private persons to undertake removal accompanied by some members of the army. Under such contracts, the approximate amount reportedly paid per person for removal was \$55, which included the cost of supporting each individual for one year. Of the total of \$55 per person, the amount allowed for support after removal was six cents a day.

Conclusory findings.

A. Removal and Subsistence Costs.

Although expenses varied depending on the time of the year the removal trips were made, on whether supplies could be purchased along the route, and on other conditions which differed, an examination of schedules of expenditures for removal and subsistence of Indians and related costs incurred in removals between 1831 and 1833 indicates that the kinds of items for which expenditures were made did not vary greatly.^{15/} The army representatives and the agents with whom they contracted were responsible for removal costs. Instructions to officers or agents, issued by the officer in charge of Indian affairs in the area from which the Indians were moved, or his representative, required that the strictest economy be observed in all expenditures. The accounts of the agents were examined by the Second Auditor's office of the Treasury Department and expenses were required to be listed and certified to. Regular schedules of removal expenses were kept

^{15/} This information and related correspondence on the Emigration of Indians including abstracts of expenditures by disbursing agents between November 30, 1831, and December 27, 1833, are published in Document 512, S. Doc. Vols. 9, 11, 23rd Cong. 1st Sess. (1833-34).

and reported by the Commissary General of Subsistence. Correspondence between the Second Auditor of the Treasury Department and General Wm. Clark, Superintendent of Indian Affairs at St. Louis, Missouri, indicates that removal costs were to be kept at a minimum. In a letter of October 30, 1933, to General Clark, the Second Auditor stated that the United States had paid six and one-half cents a ration (i.e. per person) and never more than eight cents a ration (per day) for Indians emigrating west, and all traveled at least 12 miles a day. The expenditures for the Senecas (in 1831 and 1832) exceeded this. Explanations of the costs for the Senecas is contained in correspondence and schedules listing expenditures. The Senecas had suffered from measles and many other illnesses en route which caused delays. Rentals of wagons, the cost of caring for horses, for related transportation needs, and the cost of all provisions was increased by the delays. But the schedules of expenditures for Seneca removal costs show that only basic necessities were purchased such as food (pork, flour, corn, beef), hiring wagons, horses, and related equipment, and that a relatively small amount was spent on care of the ill.

Under the Treaty of July 20, 1831 (7 Stat. 351, 352), in which two Indian groups ceded Ohio lands and agreed to move west of the Mississippi, the United States promised that it would supply them with a sufficiency of good and wholesome provisions to support them for one

year after their arrival at their new residence. Schedules in Document 512 list the following items which were purchased by the United States apparently in fulfillment of this treaty obligation: rifles, hoes, axes, ploughs, and blankets. Other information in the correspondence and schedules in Document 512 substantiates a conclusion that the United States satisfied treaty obligations to furnish goods and provisions by supplying items which, for the most part, were essential to subsistence, such as food, clothing, farming supplies, and equipment, and tools.

B. Nine Sections of Land in Royce Area 148.

Findings 39 through 57 of the Commission in Citizen Band of Potawatomi Indians, v. United States, Docket 217, 11 Ind. Cls. Comm. 641, 667-77 (1962), rev'd, in part not here relevant, 179 Ct. Cls. 473 (1967), cert. denied, 389 U.S. 1046 (1968), indicate that the nine sections of land in Royce Area 148 which were reserved from the cession of most of Area 148 under the Treaty of July 29, 1829 (7 Stat. 320), and were assigned and surrendered under the Treaty of September 26, 1833, are, in their physical characteristics and their location near transportation and marketing centers, like the lands in Illinois in the southern portion of Area 187 here involved. The above cited findings in Docket 217 support a conclusion that there is no basis for differentiating between the lands in Area 148 and those in the southern portion of Area 187 with respect to the physical qualities and assets of the lands. Accordingly, we find that the per-acre value of the nine sections or 5,760 acres of land in Area 148 was the same as that of the southern portion of Area 187 on February 21, 1835.

C. Payments on the Claim.

The Commission concludes that the following amounts were paid by the United States to the plaintiffs pursuant to the agreement under the Treaty of September 26, 27, 1833, and that these amounts are to be deducted as payments on the claim under section 2 of the Indian Claims Commission Act:

I. Under Treaty of September 26, 1833

\$100,000.00	in lieu of reservations
150,000.00	claims against plaintiffs
280,000.00	tribal annuities
150,000.00	erecting mills
70,000.00	education
19,300.00	annuities for Caldwell, Sha ^h enay, Robinson, and Lafromboise
2,000.00	to Wau-pon-eh-see for land granted under Treaty of July 29, 1829
1,500.00	to Awn-kote for land granted under Treaty of July 29, 1829
<hr/>	
\$772,800.00	Total

II. Under Articles Supplementary

\$10,000.00	in lieu of reservations
25,000.00	for payment of claims
40,000.00	tribal annuity
10,000.00	change of boundary
3,000.00	Kercheval and Walker
<hr/>	
\$88,000.00	Total

D. Food, Rations, or Provisions.

The Commission finds that the following amounts were spent by the United States to fulfill obligations under the Treaty of September 26, 27, 1833. We conclude that these amounts are not payments on the claim by reason of the Act of October 27, 1974, which amended Section 2 of the Indian Claims Commission Act by precluding amounts spent for food, rations, or provisions as payments on the claim:

I. Under the Treaty of September 26, 1833:

\$391,606.65	Removal and subsistence costs
100,000.00	Goods and provisions

II. Under Articles Supplementary:

\$25,000.00	Goods and provisions
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Conclusion

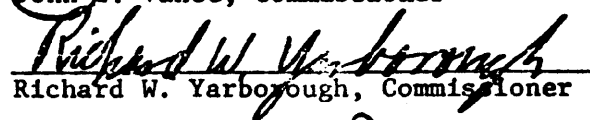
In sum, the value of the Iowa exchange tract on the evaluation date, February 21, 1835 was \$1,500,000.00.

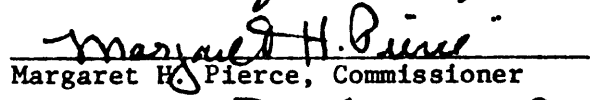
The value of the other consideration which the United States paid under the Treaty of September 26, 27, 1833, excluding payments for food, rations or provisions, was \$860,800.00. These amount to a total of \$2,360,800.00 to be deducted as payments on the plaintiffs' claim herein. Considering the defendant's payment of less than \$3,000,000.00 for land which had a fair market value of \$6,600,000.00 on the date of cession, February 21, 1835, and considering the circumstances of the cession, we find the amount paid to be so grossly inadequate as to constitute unconscionable

consideration. Accordingly, the Commission concludes that the petitioner is entitled, under the provisions of Clause 3, Section 2 of the Indian Claims Commission Act, to an award in the amount of \$4,239,200.00.


Jerome K. Kuykendall, Chairman


John T. Vance, Commissioner


Richard W. Yarborough, Commissioner


Margaret H. Pierce, Commissioner


Brantley Blue, Commissioner