

## Part B: Background

### Chapter B1: Geography

#### Geology<sup>31</sup>

WEXFORD County is underlain by several major bedrock units all lying well below the surface and covered by a thick mantle of glacial overburden. It is the thick surface layer of glacial till that has the greatest significance to the present environment activities.

Wexford County's surface geography is a product of glaciation. A great deal can be learned about the natural features of the county through review of the glacial formations in the county. See the map of quaternary geology on page 43.

Wexford County was subjected to several advances of ice sheets – glaciers – in the past. Before those ice advances was a pre-Wisconsinian stage. This stage is thought to have left a compacted clay drift underlying the surface of the ground in many parts of the county. The first glacial advance was the Tazwell substage in the Wisconsin state of Pleistocene glaciation. The second advance was an advance of the Lake Michigan lobe of the Labradorian ice sheet, during the Cary substage, late in the Wisconsin stage of Pleistocene glaciation. This action is responsible for a majority of the surface land forms within Wexford County. The third glacial advance is the Valders substage of the Wisconsin stage of Pleistocene glaciation only marginally influenced land in Wexford County. This stage left the Port Huron moraine (in the northwest corner of the county in Wexford, Springville, and Greenwood Townships). The fourth and fifth ice advances did not cover any area of Wexford County and thus did not have any impact on Wexford.

The current surface of Wexford County is mainly a result of the Cary substage glacial advance. However, the present topography is also a reflection of the much older glacial surface – the compacted clay which is a pre-Wisconsin (probably Illinoian) age surface. The clay layer is most likely of lacustrine origin, basically a glacial lake bottom. It is thought the clay is widely distributed in the county, ranging from 259 to 416 meters (850 to 1,365 feet)

above sea level. Thus erosive activities were active on the old surface during glacial and interglacial stages after deposition of the clay. There is no data on how thick the clay is, possibly over 30 meters (100 feet) thick, but more than half the sample points are less than 7½ meters (25 feet) thick.<sup>32</sup> There is no data on how continuous the clay is. One should assume it is not continuous, and not effective as an aquifer separation, that is, not truly impervious.

The Wisconsin surface is apparently a relatively thin veneer over the top of the clay.

After the Wisconsin glaciation, erosion, in the form of wind, is evident on the present surface of Wexford County. Sand blowouts<sup>33</sup> and dunes<sup>34</sup> are common on slopes of moraines and on the surface of the county outwash and till plains. This erosive activity has a major negative effect on the agricultural value of the land.

A moraine was formed when the glacial ice front remained stationary for a sufficiently long time to allow a sizable deposit to be formed as hills. In Wexford's case, the glacial ice advanced from the north and west from the Lake Michigan basin. During deposition of the moraine, the ice was in a state of balance between advance and retreat.

The network of hills which surround the valley – or bowl – around Lakes Cadillac and Mitchell are Lake Boarder moraines with kettles or moulin kames, a recessional moraine which marks the position of the Cary ice during a halt in its retreat. This moraine extends from New Buffalo, in Berrien County, and tends northward to Hart, in Oceana County, and then northeastward to Wexford County where it bends around Lakes Mitchell and Cadillac – also bending around the northern most point of the Michigan-Saginaw Interlobate Tract in Wexford County. The moraine then continues northeastward to the Grayling area, Crawford County, and then east to Oscoda County. In Wexford County this moraine is the hills which M-55 goes over when going west from Cadillac, Harrietta, Briar Hill, Meauwataka, and the hills between Cadillac and Manton. The moraine in

<sup>31</sup>The Geology of Wexford County is based on the following two sources: (1) Farrand, W. R. and Bell, D. L. *Quaternary Geology* (map of Michigan), University of Michigan Department of Geological Sciences; Michigan Department of Natural Resources; 1982. (2) Stewart, David Perry; *The Surface Geology of Wexford County, Michigan* (Thesis for the Degree of M.S., Michigan State College); 1948.

<sup>32</sup>Stewart, David Perry; *The Surface Geology of Wexford County, Michigan* (Thesis for the Degree of M.S., Michigan State College); 1948; page 5-7, table I.

<sup>33</sup>A sand blowout can be found on an outwash plan in section 31 of T24N R12N, Wexford Township.

<sup>34</sup>Dunes can be seen by looking across the lake border moraine, section 31 T22N R10W, Selma Township.



Wexford county has a relief above the surrounding plains of 15 to 214 meters (50 to 700 feet) with overall elevation of 426 to 460 meters (1,400 to 1,500 feet) above sea level. This moraine has numerous Kamic knobs, especially visible along slopes of the moraine. Kames were formed from bodies of sediment deposited in crevasses and other openings in the stagnant ice. When the ice then melted, it left the material in the form of isolated or semi-isolated mounds. Kamic knobs are usually superior sources for road construction gravel.

A second moraine is found in Wexford County's southeastern corner from the "Lake Michigan-Saginaw Interlobate Tract" ice advance. This is the northern extent of a moranic system which extends north from Big Rapids, Mecosta County. This moraine ends with its juncture with other Moraines in Wexford County. The highest point in the lower peninsula of Michigan occurs on this moraine about three miles south of the southeast corner of Wexford County, at 521 meters (1,710 feet) above sea level.)

A third moraine is found in the north central part of the county and in the northwest corner of the county along the west edge. This is the "Port Huron Morainic System" which forms the Marilla Hills in Manistee County – the southern extent of this moraine. From the central part of Wexford County the Port Huron Moraine trends north, and curves around the lower peninsula of Michigan to head back south toward Port Huron, St. Claire County. This moraine represents the maximum readvance of the later Valdres substage glacier. It might be considered the "backbone" of the glacial features of the lower peninsula.

Most moraines in Wexford County contain sufficient silt in the surface material to produce a light loamy sand soil which can be adoptable to farming. Moraines contain glacial "till," described as: They are characterized as being gray, grayish brown or reddish brown non-sorted glacial debris. The matrix is dominantly sandy clay loam, sandy loam, or loamy sand texture which may locally resemble outwash except for sporadic occurrence of non-sorted clayey or silty lenses and lack of stratification; variable amounts of cobbles and boulders. These areas occur as ground moraines, till plain or undifferentiated ground moraine-end moraine complexes including small areas of finer textured tills as well as small areas of outwash. Thicknesses are highly variable locally, less than 10 to as much as 20 to 30 meters.

Outwash is stratified, layered, glacial drift deposited by glacier meltwater streams during periods when the glacier is melting and shrinking. The meltwater flows away from the glacier well beyond the ice edge. Larger material (rocks) is deposited nearer the glacier and finer material (sand and silt) is transported farther from the glacier. Outwash plains can contain Kettlehole lakes or pits from blocks of ice which are also transported away from the glacier and melt later.

The major outwash plain in Wexford County is found inbetween the Port Huron Moraine and the Lake Boarder Moraine – along which the Big Manistee River now flows. This plain extends from the northeast corner of the county, north of Manton, and tends west and then south along the Manistee County line.

An unusual feature exists in Wexford and Hanover

Townships in this outwash plain – a feature seldom found in outwash areas, and not found anywhere else in Wexford County:

The outwash deposit forming this section of the plains was laid down in the embayment formed by the arc of the outer ridge of the Port Huron Moraine . . . . The embayment formed a large semicircular bowl that had a tendency to restrict the outflow of the meltwaters and thus facilitate the development of an unusually thick deposit. In addition to forming a thin deposit, the restricted water flow made possible the concentration of a large portion of fine material that normally would have been transported well beyond the ice margin. The presence of glacial flour on the high plains has produced a soil of much better quality than that developed on any other outwash plain in the county. Because of its good soil and gentle slopes, the high plain is the most productive agricultural area in the county.<sup>35</sup>

The Big Manistee River cut its course across Wexford County following the line of least resistance going west from Missaukee County to the Port Huron Moraine, then turning south in Manistee County. Thus the river cut directly across the open end of the morainic embayment in northwestern Wexford County.

The Big Manistee River carved a prominent valley: From the river itself, the first rise in the valley (the immediate valley) is 38 meters (125 feet). About one mile farther back a second rise of 15 to 46 meters (50 to 75 feet) to an elevation of 312.5 meters (1,025 feet), takes place. Then the topology gradually rises another 21.3 meters (70 feet).

The surface of this high plain is relatively flat with the exceptions of the gullies produced by erosion by Fletcher, Wheeler and Anderson Creeks.

A second outwash plain is found at the central south part of the county in Henderson and Cherry Grove Townships. This outwash plain has many Kettlehole lakes and pits. This outwash area extends northeast past Lakes Cadillac and Mitchell.

A third outwash plain is around Long Lake and connects to the east to a large pitted outwash plain in Missaukee County. The Clam River draining Lake Cadillac connects the two outwash plains through a valley at E 34 Road.

Except as noted on the high plateau, soil in outwash plains tend to be poor for agricultural purposes, and lacking meaningful quantity of silt. Generally a glacial outwash plain is described as: The water deposited glacial sand and gravel, outwash (sorted and stratified) glacial sand and gravel and post glacial alluvium is characterized as pale brown to pale reddish brown, fine to coarse sand alternatively with layers of small gravel to heavy cobbles, mixed

<sup>35</sup>Stewart, David Perry; *The Surface Geology of Wexford County, Michigan* (Thesis for the Degree of M.S., Michigan State College); 1948; page 21.



lithology of sedimentary, igneous, and metamorphic rocks, well- to poorly-sorted, well-stratified, in places crossbedded. It occurs as fluvial terraces along present and abandoned drainage ways, as sands and sheets flanking end moraine, and as deltas along glacial lake margins. It includes narrow belts of Holocene alluvium inset below outwash terraces along side present streams, but too limited to map separately. Thickness is 1 to 20 meters.

A small area of Wexford County is a "Till Plain" in Cherry Grove Township, a small portion in Clam Lake Township, and south of the town of Boon. This is an area of the county where the pre-Wisconsin clay surface is still exposed—where erosion by the tributary streams of the Pine River washed away the thin outwash cover.

The area to the west and north of Lakes Cadillac and Mitchell (and along the Pine River in South Branch Township) have characteristics which are neither outwash plain nor till plain. This area has a thin veneer of outwash over the pre-Wisconsin clay surface. Stewart called this area "composite plain." Farrand and Bell categorized the area as Lacustrine plain. The "lake beach" or littoral Lacustrine sand and gravel plain is characterized with pale brown to pale reddish brown, fine to medium sand, commonly including beds or lenses of small gravel, chiefly quartz sand, but rich in igneous and metamorphic rocks. This occurs chiefly as former beach and near-offshore littoral deposits of glacial Great Lakes, and may include intercalated lacustrine clay. Locally it is veneered by discontinuous sheets or small dunes of eolian sand and may include considerable areas of organic soils. Thickness is 1 to 30 meters.

A major characteristic of both the "till plain" and composite or lacustrine plains in Wexford County is the presence of a lot of wetlands and poorly drained soils.

## Location

**W**EXFORD County is a standard sized county, approximately 24 by 24 miles square. The county is 575.4 square miles (368,257.78 acres). The land area is 564.25 square miles (361,116.87 acres), with an inland water area of about 11.16 square miles (7,140.91 acres).

Wexford County has an abundance of good quality surface and ground water. Inland lakes and streams are frequent in the county. The present and probable future use

of inland waters is limited to recreation, and residential purposes.

The county drainage system is a part of two major watersheds within Michigan. Most of the county is located in the Big Manistee River watershed (including drainage to the Pine River). Portions of the southeast part of the county, including Lakes Cadillac and Mitchell, and the Clam River are part of the Muskegon River watershed. At present, groundwater, via wells, from glacial drifts is the main supply source for nearly all fresh water used in Wexford.

## Climate<sup>36</sup>

**T**EMPERATURES in Wexford County vary from a February minimum average of 7.9°F to a August maximum average of 76.7°F. The record low was -43°F in January 30, 1951, and record high was 104°F in July 13, 1936. The highest average monthly maximum temperature was 87.2°F recorded in July 1955, and the lowest average monthly minimum temperature was -4.5°F, recorded in February 1978. See the daily temperature graph on page 45.

Heating and cooling degree-days data are used as an index of the heating and cooling requirements for buildings which are proportional to the number of degree-days. Heating degree-days for a single day are obtained by subtracting the mean temperature from 65°F from the mean temperature when the mean temperature is below 65°F. Cooling degree-days for a single day are obtained by subtracting 65°F from the mean temperature when the mean temperature is above 65°F. Each are then summed to yield monthly totals.

<sup>36</sup>Discussion on climate based on the Michigan Department of Agriculture, Climatology Program, 417 Natural Science Building, Michigan State University, East Lansing, Michigan.



Heating and Cooling Degree Days Table

MONTH	HEATING DEGREE DAYS	COOLING DEGREE DAYS
January	1,475	0
February	1,332	0
March	1,175	0
April	705	1
May	383	15
June	137	62
July	58	104
August	88	82
September	264	25
October	558	2
November	910	0
December	1,307	0
Year	8,392	291

Based on the 1951-1980 period, the average date of the last freezing temperature in the spring was June 3. The average date of the first freezing temperature in the fall was September 12. The freeze-free period, or growing season averaged 100 days annually.

Wexford County is located about 21 to 28 miles<sup>37</sup> east of Lake Michigan. As a result of prevailing westerly winds, crossing Lake Michigan, Wexford County experiences a lake effect influence on the weather. The lake effect is mainly in the winter, providing increased cloudiness and snowfall. With northeast winds the sky may clear and provide lower temperatures more commonly experienced at interior locations. The lake effect has almost no effect in the summer, or for agricultural purposes. Wexford's climate is characterized by larger temperature ranges than in areas at the same latitude near the Great Lakes.

Wexford seldom experiences prolonged periods of hot, humid weather in the summer or extreme cold during winter due to the movement of pressure systems across the nation. The prevailing wind is westerly, averaging 9 miles per hour (mph). The average 1 p.m. relative humidity varies from 51% for May to 78% for December, and averages 63% annually.

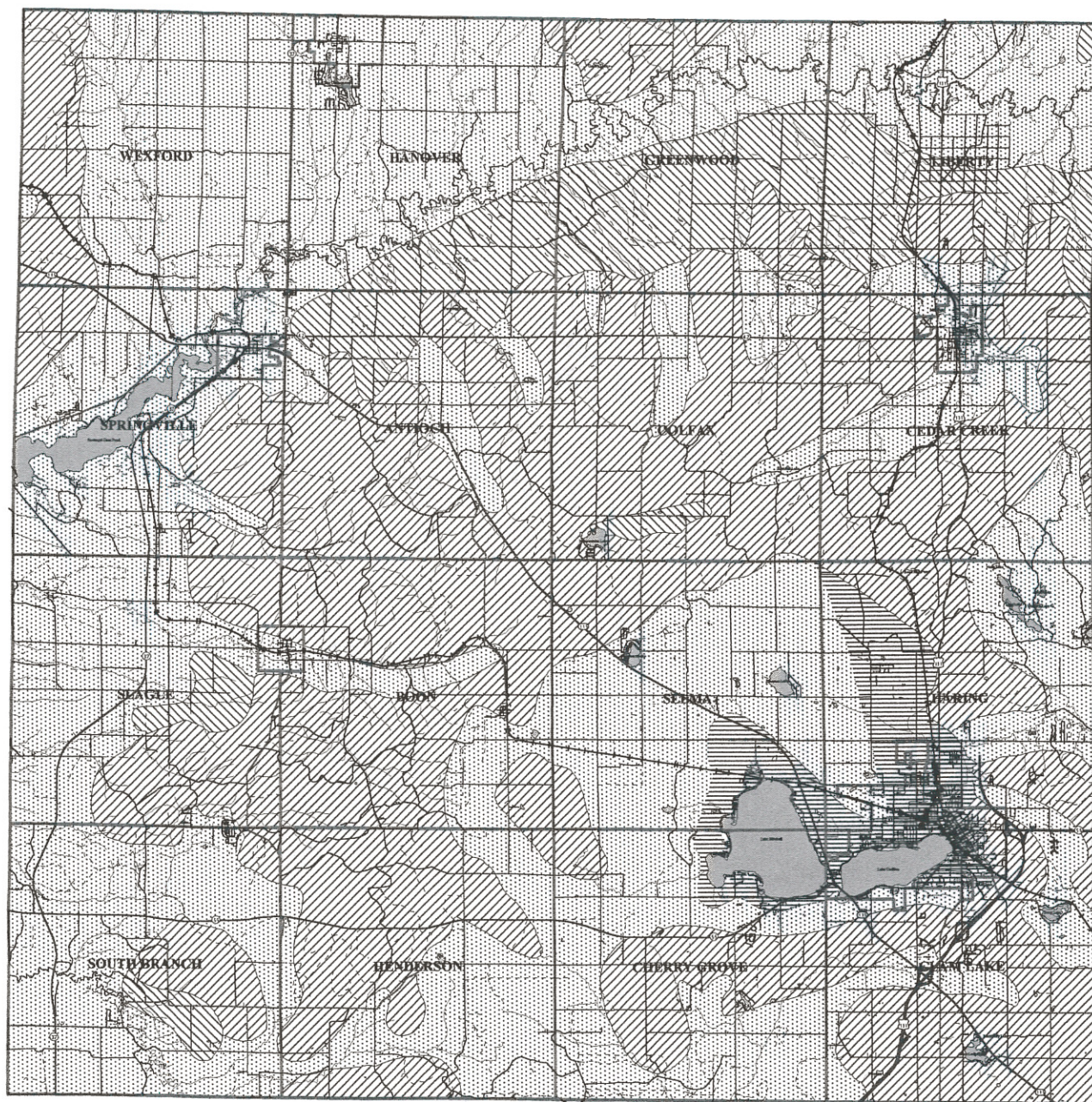
Precipitation is well distributed throughout the year. The crop season, April-September, receives an average of 18.37 inches of rain, or 60% of the average annual total during the 1951-1980 period. In the same period the wettest month was September with 3.48 inches. The average driest month was February with 1.38 inches. The largest amount of precipitation in a 24 hour period was 3.77 inches in May 27-28, 1945. The greatest monthly total was 12.25 inches in September 1986. The least monthly total was 0.00 inches in September 1979.

Summer precipitation is mainly in the form of afternoon showers and thundershowers. Annually, thunderstorms occur on an average of 33 days. Michigan is at the northeast fringe of the Midwest tornado belt. During 1950-1987 there were five tornadoes in Wexford County.

In winter the 1950-1951 through 1979-1980 average seasonal snowfall was 71.4 inches. During this period 114 days per season average 1 inch or more of snow on the ground, but varies greatly from year to year. The greatest snow depth of 42 inches was recorded February 24, 1959. The largest amount of snowfall is 12 inches in a day on January 27, 1978. The largest monthly total is 60.1 inches in January 1982. The greatest seasonal total is 181 inches in 1984-1985. The least seasonal total is 26.9 inches in 1936-1937.

<sup>37</sup>The distance is about 21 miles at the north end, and 28 miles at the south end of Wexford County. The difference is due to the irregular Lake Michigan coastline.





SOURCE: Digitized in Wexford County Geographic Information System (GIS) by Mike Green based on work by Farrand, W. R. and Bell, D. L. *Quaternary Geology* (map of Michigan), University of Michigan Department of Geological Sciences; Michigan Department of Natural Resources; 1982.



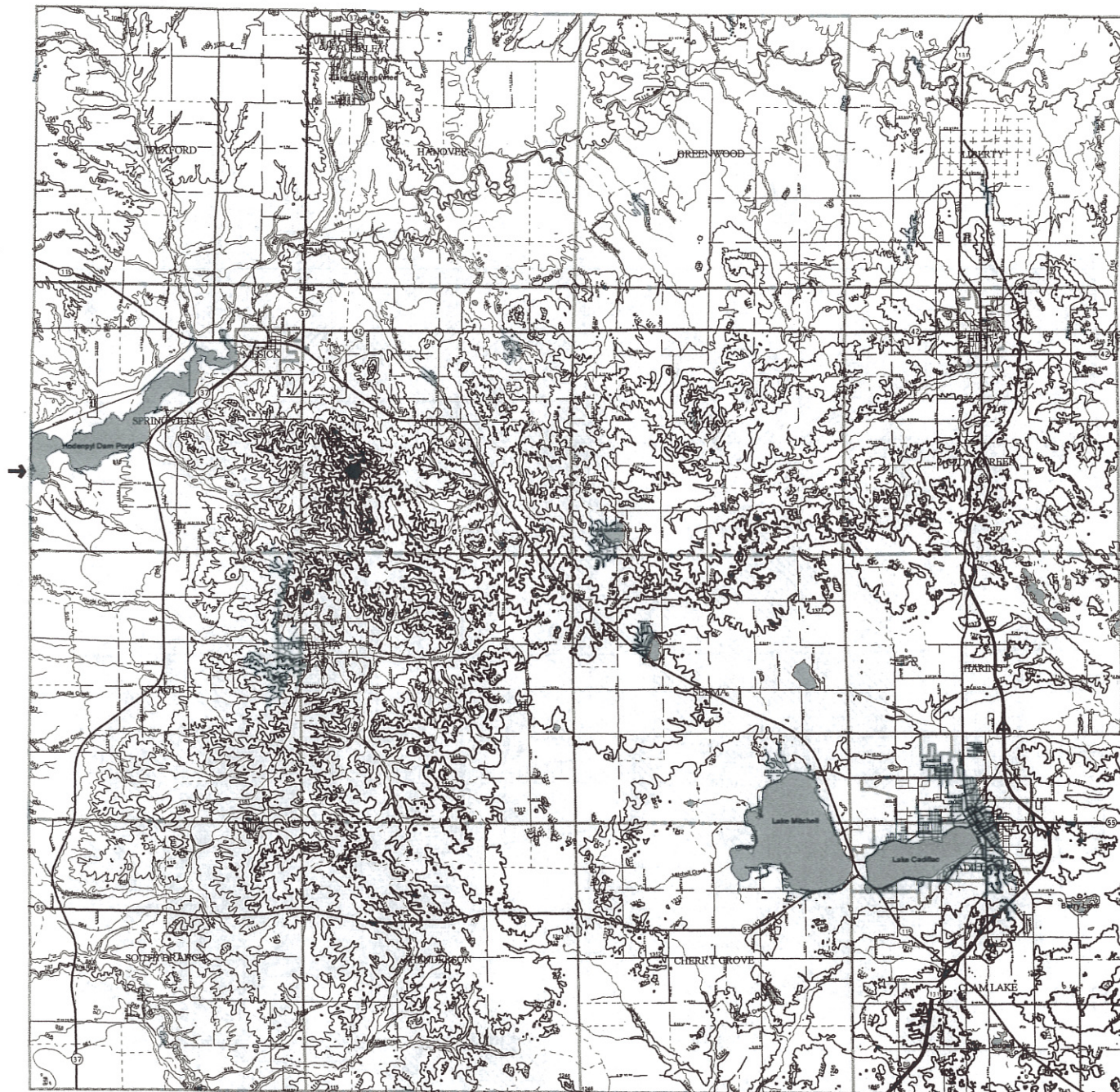
## Quaternary Geology

- Highways**
- State Highway
  - County Primary
  - County Local
  - City Major
  - City Minor
  - Not Act 51 Certified
- Railroads**
- Municipalities
- Quaternary Geology**
- Coarse-textured glacial till
  - End moraines of coarse-textured till
  - Glacial outwash sand and gravel and postglacial alluvium
  - Lacustrine sand and gravel



2 0 2 4 Miles





### Topography

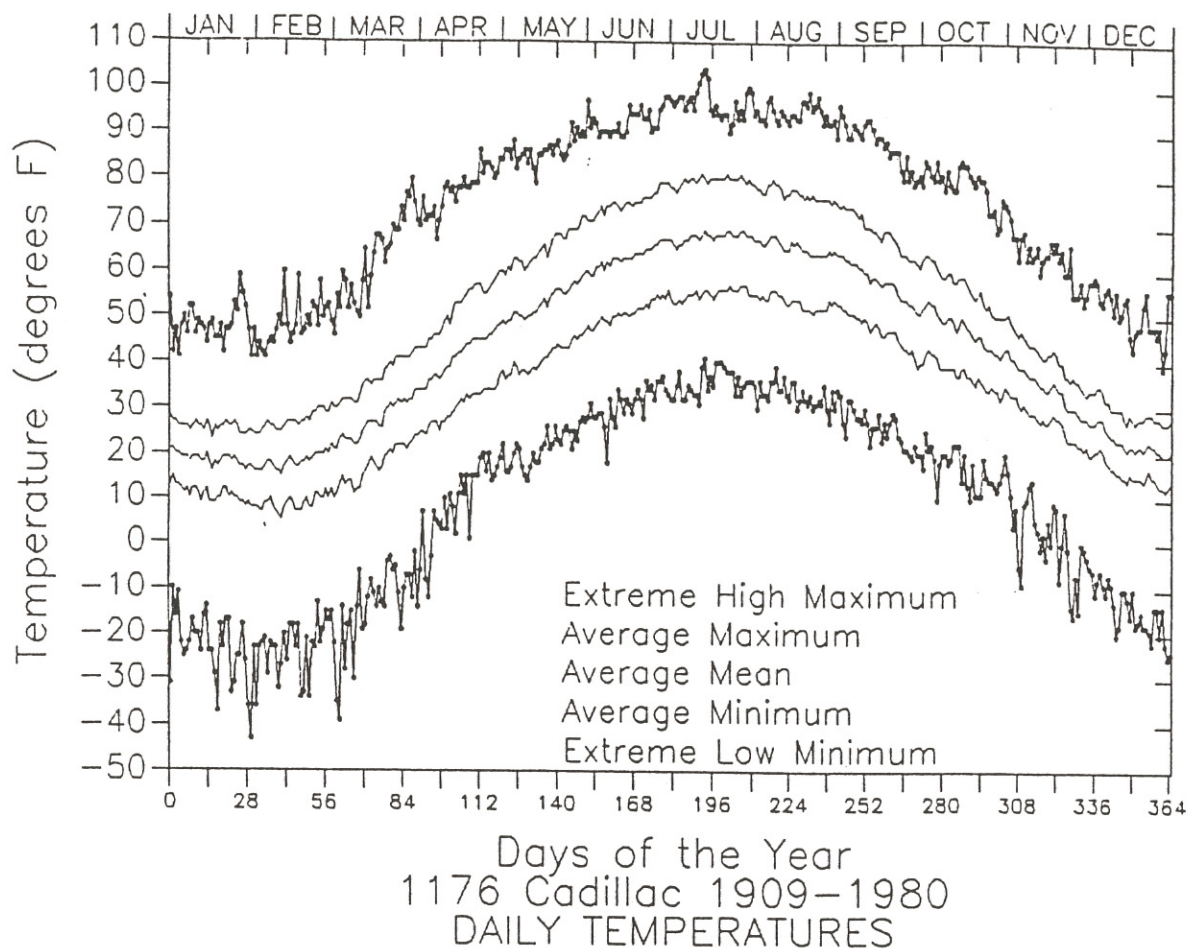
SOURCE: United States Geological Survey composite topological survey map contour lines.

3 0 3 6 Miles

- Lowest point in Wexford County
- Highest point in Wexford County













## Narrative<sup>38 39 40 41 42 43 44 45</sup>

THIS history of Wexford County is not intended to be a complete treatment of the subject. For purposes of this document, its focus is on the use of the land, its settlement and development and other influences on similar topics.

Wexford geography is shaped by the glaciers, large sheets of ice which covered all of Michigan during the last ice age. Following the glaciers, this area was probably first occupied by *Peleo* Indians dating from prehistoric times -- during the last glacial retreat from the Great Lakes. Later, prehistoric Indians --early woodland cultures-- left burial mounds at several locations in the county. Their occupation seems to have been on a seasonal basis with the emphasis on hunting, fishing, and gardening. Early historic Indians which are dominant in Wexford County were Potawatomis, similar in culture to Ottawa Indians.

The *Gaaching Ziibi Daawaa Anishnaabe* (Little River Band of Ottawa Indians) has existed throughout post-glacial history in the Great Lakes region. The Ottawa *ota'wa'* (trade) was predominantly in the capacity of middle men between the Chippewa, to the north, and Huron Indians to the south. In the 1600's the French were added to the scene through trade for beaver pelts. This trade resulted in Indian dependency on Europeans. The Ottawa relationship with the French also resulted in increased Ottawa territory; including into their old hunting grounds, the lower peninsula of Michigan.

In 1763 the Treaty of Paris placed all of French Canada, including the territory of Wexford County, under British control --a disputed "control." The 1784 Treaty of

## Chapter B2: History

Paris placed Michigan under United States jurisdiction --a jurisdiction which was not, in practice, a reality until after the War of 1812.

The first white men visiting the area found evidence of Native American occupation but again these appeared to be used only in the summer during the gardening and fishing time. In the 18<sup>th</sup> century, there was undoubtedly fur trapping by the Indians of the area for extensive fur trade of that era. Several Native American trails were in Wexford County: One running across the southeast corner of the county going around little Clam Lake (Lake Cadillac). A second ran between Little Clam Lake and Big Clam Lake (Lake Mitchell) north to the Big Manistee River at section 32 of Hanover Township and north to Grand Traverse Bay.

These white men were French missionaries, later fur traders and military. In Wexford County the fur trade enticed people to travel up and down the Big Manistee River. Use of the river was to trap beaver, not because the river was easily passable. In its natural state the river was often blocked by overhangs, rocks, and tipped trees all which collected floating debris and created matted jams. Use of one such matted jam to cross the river was found where the Native American trail to Traverse City crossed the Big Manistee River.

Some Native Americans were later moved by the United States government to west of the Mississippi River, although some stayed in the area. The United States sought to purchase tribal lands through the use of treaties, the standard mechanism for dealing with foreign nations.

The Federal government did not protect the Grand River Ottawa from unscrupulous land speculators and many families lost title to their allotments in the Reservations in Muskegon, Oceana, and Mason Counties. A number of Bands moved from those areas to the 1836 Reservation on the Big Manistee River.

In 1836, the United States government purchased the land of Wexford County through the treaty of Washington from the Chippewas and Ottawas. One of the terms of this treaty provided for reservations at sites chosen by the Native Americans where they could be taught to live as white men. A strip of land six miles wide centered around Manistee Lake, and stretching back from Lake Michigan on both sides of the Big Manistee River about 20 miles was selected by the Chippewas as the site for one of the reservations. Accordingly, in 1837, the federal government sent a farmer, teacher, carpenter, blacksmith, and interpreter to the area and established a small community at the north end of Manistee Lake. Over a two year period, only about 50 Indians were induced to settle permanently on the Reservation. This, coupled with the fact that the white

<sup>38</sup> GLO maps and notes of the county.

<sup>39</sup> Wexford County Historical Society (O'Leary, Kelly); *Cadillac to Traverse City Indian Trail*; 1994.

<sup>40</sup> Peterson, Judge William R.; *The View From Courthouse Hill*, privately published; 1972.

<sup>41</sup> Cadillac Area Chamber of Commerce; *100 Years of Community Service*; video tape; 1999.

<sup>42</sup> Gray, Jenny; "History Lesson: Schools Change With Times"; *Cadillac News*; Dec. 31, 1999-Jan. 2, 2000; page 1&A2.

<sup>43</sup> Wexford County Historical Society; *Rural Schools of Wexford County, A Guide*; 1981

<sup>44</sup> Cadillac Area Chamber of Commerce; "Chamber Marks 100 Years of Community Involvement" in Cadillac Area Chamber of Commerce 1999 Annual Report; *Cadillac Evening News* supplement; September 18, 1999.

<sup>45</sup> *Cadillac, Its Past, Present and Future. A Symposium. Reminisces, Sketches, History and Prophecy.* The Cadillac News and Express, circa 1892 (Reproduction, Cadillac Printing Company circa 1992).



residents were never able to get along with each other, caused the government to abandon the Manistee location early in 1839. It is the Native Americans – *Gaaching Ziibi Daawaa Anishnaabe* (Little River Band of Ottawa Indians)<sup>46</sup> – associated with this reservation and areas of the state to the south which still predominate today in Wexford County. Native American is still the largest minority group in Wexford County.

In 1837 the territory of today's Wexford County became part of Michilimackinac County, with Mackinac Island as the county seat.

The United States Government Land Office (GLO) survey of Wexford County started in 1837. The order in which the survey was done is important. The earlier surveys are given higher precedence for locating a given surveyed line.

The first U.S. Government survey done in Wexford County was of the Tier and Range (Township) lines. John Brink did the work in 1837 and 1838 for GLO at the same time he was doing the Indian Reservation boundary survey near Manistee and survey work in what is today Manistee County.<sup>47</sup>

Then the section lines (subdivisions) were surveyed.<sup>48</sup>

Some of this work was done by John Brink for GLO during 1839 in today's Antioch, Springville, Hanover and Wexford Townships.

At this point GLO survey activity in Wexford County stopped. Also in 1840 the territory of today's Wexford County became part of Mackinac County, with Mackinac Island as the county seat. The GLO surveys done at this time also laid out the proposed future counties. The name originally given to the territory of today's Wexford County was *Kautawabet*, an Native American word for "broken tooth" after a chief of the Potawatami Tribe.<sup>49</sup> In 1843 the Michigan legislature recanted, and renamed 16 of the counties.

In 1848 contracts for GLO survey work was awarded to two surveyors – Orson or Ordon Lynn or Lyon, and Orange Risdon – to do survey section lines in what is today Clam Lake, Cherry Grove, Henderson, South Branch, Slagle, and Boon Townships. Then survey work stopped again.

In 1849 the territory of today's Wexford County became part of Ottawa County, with Grand Haven as the county seat.

In 1852 two surveyors – V. W. Caukin and L. S. Scranton – were contracted by GLO to complete the survey of Wexford County: section lines in today's Haring Charter Township, Cedar Creek, Liberty, Selma, Colfax and Greenwood Townships.

The progress of GLO surveys for Wexford County is summarized in the following table.

<sup>46</sup>The *Gaaching Ziibi Daawaa Anishnaabe* (Little River Band of Ottawa Indians) *Ogema* (tribal leadership) was reaffirmed as a federally recognized tribe by public law 103-324 (108 Stat. 2156) on September 21, 1994.

<sup>47</sup>Mr. Brink's dates of work given in his notes appear to be suspect. According to those dates he did the Indian Reservation boundary for the Indian Commission, GLO and Tier-Range lines survey all at the same time.

<sup>48</sup>Three sets of survey instructions exist, all three of which may be found to have been used in Wexford County: (1) resulting in "standard" and "closing" corners along the Tier (north/south) boundary of a township, (2) going back to result in the "standard" and "closing" corner to be placed at the same location along Tier lines and (3) resulting in "standard" and "closing" corners along the Range (east/west) boundary of a township. When a "closing" and "standard" corner are not at the same location, then the two different locations are used, respectively, for the two adjacent townships.

<sup>49</sup>The name *Kautawabet* or *Kautowaubet*, is also claimed to be an Indian word meaning "land of water," by those who are more responsible for promoting the area. The name was probably first applied to the area by Henry Schoolcraft, responsible for naming many of Michigan's counties.



G.L.O. Survey Progress Table

Tier North	Range West	Today's Municipality Name	Work done	Date GLO Survey was done	GLO contract surveyor
21	9	Clam Lake Township, part of Cadillac City	township lines	2 <sup>nd</sup> quarter 1837	John Brink
21	10	Cherry Grove Township	township lines	2 <sup>nd</sup> quarter 1837	John Brink
21	11	Henderson Township	township lines	3 <sup>rd</sup> quarter 1837	John Brink
22	11	Boon Township and part of Harrietta Village	township lines	3 <sup>rd</sup> quarter 1837	John Brink
21	12	South Branch Township	township lines	3 <sup>rd</sup> quarter 1837	John Brink
22	12	Slagle Township and part of Harrietta Village	township lines	3 <sup>rd</sup> quarter 1837	John Brink
22	9	Haring Charter Township and part of Cadillac City	township lines	4 <sup>th</sup> quarter 1837	John Brink
22	10	Selma Township	township lines	4 <sup>th</sup> quarter 1837	John Brink
23	9	Cedar Creek Township and Manton City	township lines	2 <sup>nd</sup> quarter 1838	John Brink
23	10	Colfax Township	township lines	2 <sup>nd</sup> quarter 1838	John Brink
24	9	Liberty Township	township lines	2 <sup>nd</sup> & 3 <sup>rd</sup> quarter 1838	John Brink
24	10	Greenwood Township	township lines	2 <sup>nd</sup> & 4 <sup>th</sup> quarter 1838	John Brink
23	11	Antioch Township	township lines	3 <sup>rd</sup> quarter 1838	John Brink
23	12	Springville Township and Mesick Village	township lines	3 <sup>rd</sup> quarter 1838	John Brink
24	11	Hanover Township and Buckley Village	township lines	3 <sup>rd</sup> quarter 1838	John Brink
24	12	Wexford Township	township lines	3 <sup>rd</sup> quarter 1838	John Brink
23	11	Antioch Township	subdivisions	4 <sup>th</sup> quarter 1839	John Brink
23	12	Springville Township and Mesick Village	subdivisions	4 <sup>th</sup> quarter 1839	John Brink
24	11	Hanover Township and Buckley Village	subdivisions	4 <sup>th</sup> quarter 1839	John Brink
24	12	Wexford Township	subdivisions	4 <sup>th</sup> quarter 1839	John Brink
21	10	Cherry Grove Township	re survey of subdivisions	3 <sup>rd</sup> quarter 1848	Orson Lynn
21	11	Henderson Township	subdivisions	3 <sup>rd</sup> quarter 1848	Orson Lyon
21	12	South Branch Township	subdivisions	3 <sup>rd</sup> quarter 1848	Orange Risdon
22	12	Slagle Township and part of Harrietta Village	subdivisions	3 <sup>rd</sup> quarter 1848	Orange Risdon
21	9	Clam Lake Township, part of Cadillac City	re survey of subdivisions	4 <sup>th</sup> quarter 1848	Orson Lynn
22	11	Boon Township and part of Harrietta Village	subdivisions	3 <sup>rd</sup> quarter 1848	Ordon Lyon
22	9	Haring Charter Township and part of Cadillac City	subdivisions	2 <sup>nd</sup> & 3 <sup>rd</sup> quarter 1852	V. W. Caukin
23	9	Cedar Creek Township and Manton City	subdivisions	2 <sup>nd</sup> & 3 <sup>rd</sup> quarter 1852	V. W. Caukin
24	9	Liberty Township	subdivisions and subdivision of section 37, 32, 33.	3 <sup>rd</sup> quarter 1852	V. W. Caukin
22	10	Selma Township	subdivisions	3 <sup>rd</sup> quarter 1852	L. S. Scranton
23	10	Colfax Township	subdivisions	3 <sup>rd</sup> quarter 1852	L. S. Scranton
24	10	Greenwood Township	subdivisions	3 <sup>rd</sup> quarter 1852	L. S. Scranton



The GLO land survey – dividing the county into square mile Public Land Survey sections, and six by six townships has a major influence on the development of the county, placement of rural roads, and property development. This grid pattern is still the dominant rural land development pattern today. Surveying during 1830-1850 was not as accurate as one can be today with modern equipment. Also, as one attempts to create a square grid onto a round earth,

with hills, valleys, and so on, imperfections become the rule – not the exception. In surveying the historic original corner location carries the most weight in establishing section lines and boundaries. The result is the “six by six square” “36 square mile” township is rarely exactly 36 square miles. The following table illustrates this point.

### Municipality Size

	Size of Municipality		
	acres	square miles	Rank
Wexford County (83)	367,606.0	574.384	1
Wexford Twp.	23,389.8	36.547	2
Liberty Twp.	23,360.8	36.501	3
Cherry Grove Twp.	23,232.0	36.300	4
Henderson Twp.	23,165.0	36.195	5
South Branch Twp.	23,048.9	36.014	6
Selma Twp	23,029.0	35.983	7
Boon Twp	22,720.9	35.501	8
Slagle Twp.	22,623.5	35.349	9
Greenwood Twp	22,664.6	35.413	10
Colfax Twp.	22,628.3	35.357	11
Antioch Twp.	22,542.9	35.223	12
Hanover Twp.	21,917.5	34.246	13
Springville Twp.	21,909.0	34.233	14
Cedar Creek Twp.	21,870.4	34.173	15
Haring Charter Twp.	21,407.0	33.448	16
Clam Lake Twp.	19,908.5	31.107	17
Cadillac City	5,350.3	8.360	18
Buckley Village	1,204.4	1.882	19
Manton City	997.3	1.558	20
Mesick Village	829.7	1.296	21
Harrietta Village	635.9	0.994	22

In 1853 the territory of today's Wexford County became part of Grand Traverse County, with Traverse City as the county seat.

In 1855 the territory of today's Wexford County became part of Manistee County, with Manistee as the county seat. Today's Missaukee and Wexford counties were part of Manistee County's Brown Township.

In 1857 the state approved the construction of a new state road, the “Muskegon and Northern Pike,” later known as the “Newago and Northport State Road” (roughly following today's M-37). The road was built by clearing a path in the woods from 1858-1863 and the Big Manistee River was bridged in 1864. The first European-descendent settler in the county – Benjamin W. Hall – followed this road in 1862 and located in section 30 of today's Hanover Township, just north of the Big Manistee River. By the end of 1863, seven families homesteaded in the same area and at the end of 1864 another 15 families settled in the area. Most the families were from New York state and were connected to Traverse City for commerce. Grand Traverse County, at the time had a population of 2,000.

In 1866 the Manistee County Board of Supervisors (now County Commissioners) separated the territory of Missaukee and Wexford Counties from Brown Township by creating Wexford Township for the entire area of today's Wexford and Missaukee Counties.<sup>50</sup> By 1868 there was daily mail service from Traverse City to the Wexford Post Office. An estimated 450 people lived in Wexford Township.

During this era the only people coming into the county were looking for free government land under the Homestead Act. Land was also sold to timber speculators, not settlers. Also over half of Wexford County was already set aside for specific government grants and not available for homesteading. Half the land in the county was a land grant to the Grand Rapids and Indiana Railroad to subsidize construction of a railroad from Grand Rapids to some point

<sup>50</sup>Thus, Manistee County's original three townships, Manistee, Stronach and Brown, were added to: Bear Lake, Onekama, Marilla and Wexford Townships. Before Wexford County was founded Cleon, Filer, Arcadia and Pleasanton Townships were created, all in the territory of today's Manistee County.



on Little Traverse Bay. Literally every odd numbered public land survey section in Wexford County was given to the railroad. This further isolated early settlement patterns, as people tended to be spread out among alternating sections. The Homestead Act had a maximum of 160 acres (a quarter of a square mile) so settlement would result in four families in a section, surrounded by "railroad" sections in which no one lived. Other government land grants were for general education grants to the states (public land survey section 16 in each township) and the Morrill Act grants to support state "land grant colleges." These three, plus the Homestead Act of 1862 resulted in only half the available land being given way in Wexford County. This had a profound impact on the pattern of early settlement and development in Wexford County. But that impact is no longer seen today.

The close of the Civil War (1865) set off a 25-year period of continuous growth in settling areas of northern Michigan as veterans sought homes and free government land offered to civil war veterans. By 1870 every survey township had at least one homesteader.

In 1867 a two-story hotel, lumber mill, and grocery store was constructed where the Newago and Northport State Road crossed the Big Manistee River. In January 1868 a post office was created at "Manistee Bridge." However the Postal Service named the post office, and settlement, "Sherman" to honor General William T. Sherman.

In 1869 Wexford County was established (Sherman was the county seat) by passage of P.A. 386 of 1869, signed by Governor Henry P. Baldwin on March 30. Wexford included territory of today's Wexford and all of today's Missaukee County. The county was created with four townships: Wexford, Springville, Hanover and Colfax. The territory of Hanover and Colfax included area within today's Missaukee County. About 90% of the county's 500 people lived within 10 miles of Sherman. By 1870 the census showed 650 people in Wexford County.

With the organization of the county there was an increased interest to settle the area around Sherman by businessmen. This resulted in land speculation around Sherman, platting a Village of Sherman, three lawyers, two physicians, sawmills, school, two general stores, grocery and drug store, blacksmith, Maqueston Hall, in 1871 a Methodist Church, a newspaper *The Wexford County Pioneer* (a.k.a. *The Sherman Pioneer*), and in 1873, a Congregational church.

The Manistee River Navigation Company was formed by the major logging companies located in Manistee. This cleared the Big Manistee River of various jams making the river navigable to float logs down the river to their saw mills. This river clearing activity started at Manistee and reached Sherman in 1870. This meant intensive logging activity would come to northern Wexford County and led to optimistic ideas of steamer traffic on the river. Boat travel on the river never happened due to lack of investors. The first logging camp was located in Springville Township.

With adverse weather conditions, several small fires

got out of control on October 8, 1871, burning through most of northern Michigan – in particular in areas where timber had been cut and slash left on the ground. Because timber activity was just starting in Wexford, most of the county was spared the destruction of this fire season. This occurred on the same day as the great Chicago fire. The rebuilding of Chicago produced a large market for timber products which came from northern Michigan.

In the 1870s, Sherman's growth slowed with most of the new growth in Wexford County now taking place in the southeast corner of the county, where a new rail road was located in Clam Lake, Haring and Cedar Creek Townships. Transportation in the 1870s was a matter of time and money, power and prestige. A twenty mile trip on roads usually took four hours. The existence of a railroad was a major advantage. By 1880 Manton and Cadillac were both larger than Sherman.

In 1871 the Grand Rapids and Indiana Railroad (G. R. & I.) was under construction in Wexford County. The right-of-way had been logged as far north as Fife Lake in Grand Traverse County. A small settlement had been created at the east end of Little Clam Lake.<sup>51</sup> George A. Mitchell, a younger brother of William and Charles T. Mitchell who were principles with the G. R. & I., selected the site for a settlement on the east side of Little Clam Lake. The reason for the site was to be able to use the Clam Lakes as floating ponds for timber for a future lumber industry which would use the G. R. & I. to move the product to market. Also the east end of Little Clam Lake was in the approximate center of a major area of pine stands. Mitchell was able to acquire some of the land in Railroad sections 3 and 9 in Clam Lake Township, and section 33 in Haring Township.

In 1871, Missaukee County was established and was no longer a part of Wexford County, due mainly to the growth and improved ability to settle the area as a result of the G. R. & I.

Mitchell then platted the village of Clam Lake<sup>52</sup> with an unusually wide Mitchell Street,<sup>53</sup> a block located between the railroad and lake as a park (mainly a swamp in 1871), and block "F" (an unbuildable steep hill) set aside as a

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<sup>51</sup>Little Clam Lake was renamed in 1903 Lake Cadillac. Big Clam Lake was renamed the same year as Lake Mitchell, after George A. Mitchell. The river between the two lakes retained its name, the Black River. The canal was dug later.

<sup>52</sup>Village of Clam Lake was later incorporated as a Village, and when it became a city, was renamed Cadillac.

<sup>53</sup>Mitchell Street is named after George A. Mitchell. Cass Street is named for Edgar Cass, a G. R. & I. Official (not Governor Lewis Cass), and Mason Street named for S. C. Mason, a Big Rapids innkeeper and friend of Mitchell's (not Governor Stevens T. Mason). Mitchell's Indiana partners Oscar A. Simons and attorney Augustus A. Chapin; logging and rail road associates Bremer, Nelson, Shelby, and Stimson are also remembered with street names.



location for the Wexford County Courthouse.<sup>54</sup> In January 1872, the railroad was completed as far north as Clam Lake. By 1872, Clam Lake businesses catered toward a transient population; railroad workers, woodsmen, loggers; with hotels, boarding houses, saloons, and red-light houses. The G. R. & I. also ended the dominance of Traverse City as a wholesale distribution center. Goods could be shipped by rail for the same price, and quicker, than to Traverse City by ship. Thus, Clam Lake also saw a growth in general stores, grocers, farm suppliers and wholesalers.

The plat of Clam Lake included a place for the courthouse, and Mitchell's later efforts to move the county government to Clam Lake was the initial blow in a decade-long political dispute over the location of the Wexford County seat. For detail about this aspect of the county history, one should read *The View From Courthouse Hill* by Wexford County Circuit Court Judge William R. Peterson.

The first saw mill to start in Clam Lake was Pioneer Mill owned by a business associate of Mitchell's. The mill was soon sold to Jonathan W. Cobbs, a Quaker from Ohio and Indiana. Cobbs came to Clam Lake in 1874 where he was generous in his interest to solve the problems of Swedish immigrants and provided gifts to Scandinavian churches and the Benefit Association. He also platted and then provided inexpensive lots for sale to laborers for their homes: Cobbtown. Other mills also opened, all by men somehow connected with Mitchell: Harris Brothers [lumber] Mills, James Haynes' planing mill, [Jacob] Cummer Lumber Interests, Shackleton, and Green mills.

Mitchell also recruited additional key business (retail and service) and professional people to Clam Lake. In 1872 the *Clam Lake Weekly News* started publication. The lasting legacy of Mitchell's was his ability to attract outstanding men to Clam Lake who stayed and prospered while creating a community. Mitchell provided churches, a cemetery with free land, and worked hard to procure county seat status for Clam Lake.

In 1873 the Clam Lake Canal Improvement and Construction Company completed digging a canal between Big and Little Clam Lakes. The opening of the canal lowered the water of Big Clam Lake (Lake Mitchell) by more than one foot, and raised the level of Little Clam Lake (Lake Cadillac) flooding parts of Clam Lake town.

In 1873 Manistee County's Cleon Township was detached from Manistee and became part of Wexford County. This event is unusual. It is explained by the ongoing dispute over the location of the Wexford County seat. The following is from Judge Peterson's book:

... the organization of townships, villages and cities ... at once explain how the rivalry grew and illustrate the extremes to which partisans went in

perusing their goal. A treatise entitled 'A Political History of Wexford County Townships,' which suggests old election statistics and musty records, would probably attract few readers. On the other hand, a title such as 'Your Sins Shall Find You Out'<sup>55</sup> hardly suggests a subject dealing with local government. It does more justice to our story, however, which is an account of deceit, election scandals, larceny, bribery and attempted bribery, rumors of blackmail, extortion, and larger crimes, and the final violence of 1882 that capped the political organization of the county.<sup>56</sup>

Four things drove the political battle:

- (1) The will and persistence of George A. Mitchell,
- (2) The growing population of the county, (3) The law governing a change in location of a county seat, and (4) The law dealing with township organization.<sup>57</sup>

State law in the 1870s required a public referendum to move a county seat. The population in the Clam Lake area would carry the day in such an election, as that area of the county had already outpaced the Sherman area in growth. However, the County Board of Supervisors must act to place the question to the county's voters with a 2/3 vote to do so. In this era, the membership of County Supervisors consisted of each township supervisor and each city ward representative. In Wexford, therefore, the issue became one of creating townships or cities to gain more voting members from your area on the County Board of Supervisors so a majority could not put the county seat question to a vote. However, creation of townships is done by the County Board of Supervisors – an action which fuels more fire over the county seat battle. The township supervisors from the Sherman area were thus trying to create more townships, and one way, was to have Cleon Township moved from Manistee to Wexford County. This was done by an act of the Michigan Legislature – the second and only other way to create additional townships.

Prior to 1873, new townships were in the Sherman area (Colfax 1869, Antioch 1872) and a smaller number in the Clam Lake area (Henderson 1871, Thorpe 1871 (later renamed Selma), Cherry Grove 1872, Clam Lake 1872). In 1873 Cedar Creek (Manton), Haring, and Greenwood (Sherman) were created.

Other settlements (circa 1873) in the east part of Wexford County also came into existence and started growing: Haring Station with one saw mill, retail and service enterprises and the Shay machine shop. Bond's Mill was a similar settlement in northeast Haring Township as well as

<sup>55</sup>Closing words of Thomas Ferguson to the Clam Lake representatives, at the County Board of Supervisors meeting, January 11, 1877.

<sup>56</sup>Peterson, Judge William R.; *The View From Courthouse Hill*, privately published; 1972; page 151.

<sup>57</sup>Peterson, Judge William R.; *The View From Courthouse Hill*, privately published; 1972; page 152.

<sup>54</sup>Block "F" is bounded by Mitchell, Shelby, Spruce and Beech Streets, known as Courthouse Hill – not the present site of the Wexford County courthouse.



settlements at Gilbert, Long Lake and Round Lake. By the end of 1872 the G. R. & I. reached Manton. George Manton selected the site for the city because he knew the state would build roads first along or near tier and range lines (township lines) and two intersect near where the G. R. & I. passed. In 1873 the railroad station opened and the *Manton Tribune* started publication. Construction of a second state road in the area had started going west from Manton to Sherman and Bear Lake in Manistee County, today's M-42, W 16 Road, and Thirteen Mile Road. The mail route was changed to go through Manton rather than continuing through Sherman en-route to Traverse City. In 1877 Manton incorporated as a village.

In 1874, Clam Lake was incorporated as a village. At that time several newspapers were published from the second floor of the LaBar & Cornwell building: *Michigan Advance*, the *Democrat*, *Daily Citizen*, *Arbvitaren* (a Swedish language paper), and monthly journals *Pythian*, the *State Oddfellow*, and the *Journal of Foresters*. Also in 1874 Liberty Township (Manton area) was created. In 1875 Summit Township (Sherman alliance) was created and later named Boon Township.

In 1876 the issue of County Board of Supervisors and how they lined up for moving the county seat was broken down as follows:

Clam Lake as the county seat	Sherman as the county seat	Manton as the county seat
Clam Lake Township Cherry Grove Township Henderson Township Haring Township Selma Township	Cleon Township Wexford Township Springville Township Antioch Township Boon Township Hanover Township Colfax Township	Greenwood Township Liberty Township Cedar Creek Township

No one had a majority. Then the Clam Lake delegation thought they had the support of one Manton area supervisor and one Sherman area supervisor. So on January 9, 1877 a large Clam Lake delegation (including the activists and mill hands brought along by their employers) went to Sherman anticipating the County Board of Supervisors to place the county seat location on the ballot. The delegation was in Sherman to watch the meeting and then move the county records back to Clam Lake –without waiting for the formality of the actual election. When at Sherman a large number of lumberjacks from a camp four miles up the Big Manistee River were led into town by the supervisor the Clam Lake group thought they had bought. Then an angry throng from the Manton area formed after the Cedar Creek Township supervisor agreed to support Clam Lake. The result of the mob was the supervisor was forced to resign. The County Board of Supervisors vote was 8-5, not to put the county seat issue on the ballot.

The next strategy was for Clam Lake to try to build an alliance with Manton, promising to help move the county government to Manton – a divide and conquer strategy. The deal was to introduce a motion to hold a vote to move the seat to Manton, and Cadillac would support it, knowing they would not have the  $\frac{2}{3}$  necessary votes to put the issue to the population. Manton's part in the deal was once moving the county seat to Manton was tried, and if failed, Manton would then throw its support to Clam Lake. But Sherman's faction called the bluff, and voted for the move to Manton. In 1878 a county election to move the county seat to Manton was held. Organization in Cadillac got out a "no" vote at the polls. Manton should then have realized it had been had.

In 1877 the City of Cadillac<sup>58</sup> was incorporated with Mr. Mitchell serving as its first mayor. In 1878 Mitchell died following an accident. However, the creation of Cadillac also changed the membership of the Wexford County Board of Supervisors, shifting more votes toward putting the county seat issue before the county's voters. The response by Sherman supporters was to attempt to create Sherman Township<sup>59</sup> (1877-1879), Concord Township<sup>60</sup> (1879-1880/85 disputed). Other townships attempted but never completed was West Side,<sup>61</sup> Wheatland,<sup>62</sup> Benton,<sup>63</sup> and Dover.<sup>64</sup>

Sherman's fear of losing the county seat was partly mitigated by Manton now aligned with Sherman. But through the past eight years Cadillac continued various means to bring the issue forward. In 1880 the Board of

<sup>58</sup>Cadillac was named after Antoine De La Motte Cadillac, the original settler of Detroit.

<sup>59</sup>Sherman Township consisted of Section 36 of Wexford Township, Section 1 of Hanover Township, Section 30 of Springville Township, Section 6 of Antioch Township.

<sup>60</sup>Concord Township consisted of section 31 and 32 of Hanover Township and section 5 and 6 of Antioch Township.

<sup>61</sup>West Side Township was to be part of today's Cedar Creek Township west of the G. R. & I. railroad tracks.

<sup>62</sup>Wheatland Township was to be the north half of today's Colfax Township.

<sup>63</sup>Benton was to be the south half of today's Hanover Township minus Sherman/Concord Township.

<sup>64</sup>Dover Township was to be the north five miles of today's Springville Township minus Sherman Township.



Supervisors, in a 16 to 2 vote approved a county referendum on the question of moving the county seat to Manton. The Sherman faction was realizing it would not keep the county seat, and preferred Manton to Cadillac. Cadillac voted with Manton to demonstrate its good faith under its former deal, despite its former duplicity and no intention of delivering on its promises. In 1881, the Wexford County seat was moved to Manton following a county-wide election. In 1881 Cleon Township was shifted back to Manistee County. However, Manton did not build an adequate county building – as was

part of the deal – according to the Cadillac-dominated Supervisors. As a result no county tax money was spent on furniture, jail, etc. Some of the county property at Sherman was relocated to Cadillac which is where the jail and Circuit Court actually was being held. Then the motion to hold another election to move the county seat was made. After the 1881 election the County Board of Supervisors now lined up as follows – one vote short.

Clam Lake as the county seat	Sherman as the county seat	Manton as the county seat
Clam Lake Township Cherry Grove Township Henderson Township Haring Township Selma Township Slagle Township Boon Township Colfax Township	Wexford Township Springville Township Antioch Township Hanover Township	Greenwood Township Liberty Township Cedar Creek Township

The Cadillac area responded by proposing Benson Township,<sup>65</sup> and carving Haring township up into six total townships: Kysor,<sup>66</sup> Copley,<sup>67</sup> Long Lake,<sup>68</sup> Garfield,<sup>69</sup> Linden,<sup>70</sup> and Haring.<sup>71</sup> None of the supervisors from the “new” townships actually voted at the February 14, 1881 Supervisors meeting. The motion to have a vote to move the county seat to Cadillac was made, and the vote produced 12 votes in the Cadillac faction, with Liberty Township voting with Cadillac!

In 1882, the Wexford County seat was moved to Cadillac, following a colorful story of the “Battle of Manton” with a skirmish between Cadillac and Manton residents in the course of moving county records to the new county seat.

The lasting impact of the dispute over the county seat was, at least in part, the creation of more and smaller townships in Wexford than might have otherwise occurred. In a number of surrounding counties there are still townships

which are larger than the 36 square miles (e.g. 72 square miles). This means other county townships have a larger tax base, population, and thus resources for purposes of performing township functions.

In 1878, Ephraim Shay started to manufacture and use his “Shay’s locomotive on narrow gauge railroad for purposes of lumbering. The locomotives were built by William Crippen & Son of Cadillac. The engine pulled cut timber to lumber mills for cutting. Shay held the patent on his geared locomotive as a faster less costly way to move lumber to his mills at Haring Siding along the G. R. & I.

During this era, lumber was the dominant industry, with lumber mills on all lakes in Wexford County: Meauwataka, Stone Ledge, Long Lake, Round Lake, Bond’s Mill, Woodward Lake and Billings [dam] Pond in Manton. Other mills located along the G. R. & I. and more mills along Cobbs & Mitchell and Cummer Lumber Company logging railroads. Ties to Manistee existed as major logging land speculators came from that city, and lumber barons from Manistee logged lands in Wexford through use of the Big Manistee River, Pine River, and logging railroads as well as the Manistee and Northeastern railroad. In Wexford the dominant players were Cobbs & Mitchell, Mitchell Brothers, Mitchell Brothers-Murphy and the Cummer family of enterprises: J. Cummer & Son; Cummer Lumber Company; Cummer & Cummer; Murphy & Diggins; Cummer, Diggins & Co.; Cadillac & Northeastern Railroad Company; J. Cummer and Sons; Cummer & Gerrish Planing Mills; Cummer Ladder Company; Blodgett, Cummer & Diggins; Cadillac Veneer Box Company; Climax Blind Company; Mitchell-Diggins Iron Company. Mr. Cummer was the dominant force in politics, city government, and his

<sup>65</sup>Benson Township was to be the south half of today’s Cherry Grove Township.

<sup>66</sup>Kysor Township was to be the northwest part of today’s Haring Township.

<sup>67</sup>Copley Township was to be the north central part of today’s Haring Township

<sup>68</sup>Long Lake Township was to be the northeast part of today’s Haring Township.

<sup>69</sup>Garfield Township was to be the southwest part of today’s Haring Township.

<sup>70</sup>Linden Township was to be the northeast part of today’s Haring Township.

<sup>71</sup>Haring Township was to be the center part of today’s Haring Township which was left over.



industries set wages, hours and work conditions for other employers.<sup>72</sup>

The new county seat can be viewed as four different communities: Cadillac, Cobbtown, Harriestown (Cummertown), and Frenchtown. Each were isolated by not having any road around Little Clam Lake and effectively blocking off the four communities by the large storage yards needed by each lumber mill. Passenger steamer traffic on Little Clam Lake was a common mode of transportation.

In 1884, there was still 30,000 acres (8%) of government owned land in Wexford County. The G. R. & I. still owned over 9,000 acres 2½%, of which ⅔ had not been logged.

In 1885 Cummer purchased block "F" and subdivided it.

The Toledo & Cadillac Railroad Company was organized in 1885 which resulted in a second railroad through Cadillac. There were a number of Cadillac investors (including Jacob Cummer) and city-sold bonds. From 1889 to 1894, the railroad was constructed from Cadillac to Frankfort. It later became the Toledo & Ann Arbor Railroad with car ferries across Lake Michigan. Villages which followed its construction included Harrietta,<sup>73</sup> and Mesick,<sup>74</sup> by-passing Sherman entirely. Other communities along the road included Yuma, Boon, Bagnall. None of these places had any existence prior to the railroad. These town's businesses were based on hardwood logging which was going strong at the time.

(The history of Harrietta is typical of villages and towns in western Wexford County: In 1890, the area around Harrietta was logged, principally for Charles Ruggles, a land and timber buyer from Manistee. Logging continued in the area – as in most of western Wexford County – from 1890s to 1921. Harrietta promoted itself as being in the "valley of the beautiful" in the early part of the century. In the 1900s Slovenian ethnic people moved to the area. The town consisted of three hotels, three saloons, six general stores, two meat markets, a barber, post office, railroad station, bank, school, two hardware stores, two to three churches, a brick manufacturer, stove manufacturer, pickle station, single mill, saw mill, wood novelties manufacturing, and wood alcohol manufacturing. In 1901, a fish hatchery was

constructed on Slagle Creek just west of Harrietta by the Michigan Department of Conservation. (In 1926 the hatchery was expanded, and in 1979 it was rebuilt. The Michigan Department of Natural Resources hatchery is a major trout rearing facility for Michigan.) In 1920 there were many fires in Harrietta. In the 1920s most lumber-based businesses closed or moved as the timber stands in the area were gone. The village benefitted from a small boom due to construction of Hudenpyle Dam by Consumers Power Company.<sup>75</sup> In 1972, the Wexford Sand Company of Saginaw, Michigan, started operations in Yuma, sending sand mainly to Ford Motor Company and Cleveland's Central Foundry Inc.<sup>76</sup>)

In this same era, 1880s and 1890s, Wexford County enjoyed prosperity and optimism with significant population growth, new homes, businesses, towns and a second railroad. German and Scandinavian (primarily Swedish) immigrants contributed to the county's population growth and reinforced the ethnic mix which had been occurring.

This was also the era which foreshadowed the reduction of the timber industry for most of northern Michigan. However, in Cadillac the best hardwood timber stands throughout the state were being shipped to Cadillac for processing. Cadillac's lumbering manufacturers were the acknowledged leaders of the industry, the lumber industry trade center, the location of the hardwood manufacturer's association, and publisher of half the trade journals for the industry. Cadillac was also the pricing point for hardwood flooring and lumber for the United States. This practice eventually led to federal anti-trust prosecution.

In 1889, a municipal sewer system was in place in Cadillac. This was not treated sewage, but simply pipe drainage to the Clam River from businesses and homes. The response to complaints about odor in that era was to pipe the sewage another 300 feet down stream and to ban swimming in the Clam River. The Business and Professional Men's Organization – a forerunner of a Chamber of Commerce – was organized. In 1893, electric service came to Cadillac. Cummer Lumber company built an electrical plant for its mills in the mid 1880s. In 1893, it started to burn slab-wood and acquired an electric franchise from Cadillac for street lighting. Cummer also started promoting household electric lighting at this time. In 1892, major improvements to the city's waterworks was done.

It was also common for the lumber mills to fill wetlands and Little Clam Lake with sawdust, slab wood and sand. Most mills had "dumping docks" extending out into the lake. Fluctuating water levels – resulting from high spring melt-off, loss of the buffering effect of wetlands, and the improved and widened canal between the two lakes

<sup>72</sup>Cummer also built a two story office building done in a blend of Queen Anne and British Gothic architecture on Mitchell Street – now the Cadillac News building.

<sup>73</sup>Harrietta is also known as Harietta, Harriette, and Gaston. The village is named after Harriet Burt, fiancée of Harry Ashley, builder of the railroad. Streets in Harrietta are named for railroad surveyors, engineers, and founders. In 1874 the area was known as Springdale (section 6 of Boon Township), then Harriette in 1892. The village was incorporated as Gaston in 1891 and changed back to Harriette after protest by the railroad. In 1923 it was named Harrietta.

<sup>74</sup>Mesick is also known as Sherman Station under the pretense that the railroad serviced Sherman (who raised funds to finance the road). Mesick is named after the Mesick brothers who came to the area working on the state road.

<sup>75</sup>Today, Consumers Power Company is known as Consumers Energy.

<sup>76</sup>Lazar, L. Maxine (editor); *Harrietta's First 100 Years*; Harrietta, Michigan; July 1991; a.k.a. "The Harrietta Centennial Book" by the Harrietta Centennial Committee.



resulted in repeated flooding notably in 1880, 1882, 1893, 1894, and 1895.

In 1896 and 1899, major fires burned out an entire business block in the downtown area of Cadillac. Reconstruction used masonry materials which resulted in the old buildings seen today.

On March 15, 1899, the Cadillac Club formed. This club, renamed the Cadillac Commercial Club, was a direct descendent of the Cadillac Area Chamber of Commerce. The purpose of the organization was to oversee the management of conventions, fairs, to promote raising of sugar beets in Wexford County, and work with the state to restock fish in area lakes. On March 17, 1903, the organization was re-named again becoming the Cadillac Board of Trade. With this re-organization the emphasis centered on attracting new industrial companies in the Cadillac area and to promote Wexford and surrounding counties as farm country. The effort to attract industry included cash bonuses, land, and buildings. Early successes included the Oviatt Manufacturing Company which came to Cadillac from Cleveland, Ohio; the Challenge Machine Company of Philadelphia; St. Johns Table Company in 1906; wood veneer producers; and a glove maker. The St. Johns Table Company continued to employ people in Cadillac until it closed in 1985.

In 1911, 29 years after the county seat was moved to Cadillac – the Wexford County courthouse was finally built.

In 1915, Walter Kysor<sup>77</sup> opened the Acme Motor Truck Company, a truck assembly plant, in Cadillac. This firm built the industrial buildings now occupied by the AAR Cadillac Manufacturing plant. Acme Motor Truck Company remained in Cadillac until 1932 when it was disbanded by its creditors.

In the early 1900s, pine lumber was depleted and no longer a viable resource for harvesting. Lumbermen of the late 1800s did not practice modern forestry techniques in order to replenish the forest for future harvesting. In Northern Michigan many owners of lumber companies knew exactly what they were doing and had anticipated the depletion of the forest. Many lumbermen simply chose to move farther west where there continued to be virgin forest. Others stayed in the area and created the long term nucleus for future industrial development, and in the short term produced hardwood lumber products. In 1916, the Cadillac Board of Trade was again reorganized as the Cadillac Area Chamber of Commerce, in part, in response to the need to

bring industry to the area to replace the lumber mills.

The Cadillac Malleable Iron Company opened its doors October 13, 1921. The creation of this industry was a result of lumbermen attempting to diversify. In particular the iron company's origins were from use of pig iron from the Mitchel Diggins [Lumber] Company. Cadillac Malleable Iron Company still employs about 460 people in 1999.

Also, Walter Kysor came back to Cadillac from Allegan County with his Kysor Heating Company. Mr. Kysor is credited with inventing the automobile heater which was made in Cadillac. This company evolved into today's Kysor Cooling Systems which employs about 200 people in Cadillac in 1999.

In the late 1920 the lumber industry was basically a thing of the past, with the county seeing a high rate of unemployment.

In 1927 the business community was focusing on advertising the Cadillac area, bringing conventions to town, targeting new businesses to move to the area and road improvements. However the Great Depression (1929-1940) necessitated major changes in the promotional strategy and provided a number of major opportunities – which still benefit the community today.

The depression saw the creation of the Huron-Manistee National Forest and the Fife Lake State Forest. During the 1920s and the Great Depression many rural residents and farmers lost their land. Businesses failed, credit was not possible, and property taxes were not paid. Many of the lands which were lost as a result of non-payment of taxes were marginal in terms of productivity for farming or forestry.<sup>78</sup> Wexford County never had success collecting property tax from these areas. The problem was chronic, with several successive owners unable to find an economically viable use of the land. The Forest Service received tax reverted lands from the state of Michigan, and other lands were used by the state to create a state forest system. Creation of public forests not only solved a major economic issue of the time, it created a lasting impact on the landscape of Wexford County.

The existence of the public forests provided several opportunities for the recovery of the area. In the 1920s the landscape had few areas of trees left. One can see photos of the area without any trees. The significance is these photos with few trees were taken a number of decades *after* the lumbermen left or stopped their timber harvest activity. This area was in need of major reforestation efforts, soil erosion

<sup>77</sup>Walter Kysor was the nephew of Daniel. S. Kysor who purchased the D. S. Kysor Machine Company in Cadillac (formerly McAdie & Co. and McAdie Iron Works) in 1899. Daniel Kysor was a partner in the saw mill at Bond's Mill. Prior to that he purchased the Thorp Farm in Selma Township, logged it, then logged in the southern United States before returning to Cadillac and partnered with Walter Kysor and Frank Farrar. These individuals played a major role with the Cadillac Machine Company, Acme Truck Company, and Kysor Heater Company (now Kysor Industrial Corporation).

<sup>78</sup>Some would argue the existence of the Forest Service "costs" Wexford in terms of lost tax base. The historic reality is taxes were not collected on these lands in the first place and were never productive from an economic standpoint. Reversion back to the public sector simply faced this reality. Today one can argue these public lands provide a irreplaceable public resource which adds value for the community in terms of tourist-related business development, adjacent seasonal home development, and premium prices paid for private lands which are near and next to public forest lands.



reclamation. The United States Forest Service was a major player in these efforts. One of the Midwest's largest tree nurseries existed in the Wellston-Hoxeyville area, Chittenden. Pine stock was raised at Chittenden and planted in the forest – today seen as various pine plantations. A partnership with the Civilian Conservation Corps (CCC) and public works projects (such as the construction of the forest highway M-55 from Manistee to Cadillac) were among the efforts of this era. The CCC also did much of the work with the Forest Service in reforestation efforts. As a result several of the 57 CCC in Michigan were located in Wexford County on state and federal lands. Nationwide the CCC planted

485,000,000 trees, built 7,000 miles of road, planted 157,000,000 fish as well as constructing public buildings, recreation sites, bridges and air strips.

A major triangulation mapping effort began in this part of Michigan. The United States Geological Survey started work to produce its 15 minute topological maps. This was done by constructing towers as triangulation points in the county. Today many of these tower points (and additional points added since then) became first order control points for location control for surveying and global positioning systems.

**Wexford County First Order Control Points<sup>79</sup>**

Year Monu-mented	Designation	PID	Latitude	Longitude	Location
1916	W 14	PL0238	N 44° 09' 06.60203"	W 085° 26' 33.71407"	Near W¼ corner of section 6 T20N R9W, Osceola County.
1931	MANTON	PL0515	N 44° 21' 06.83998"	W 085° 25' 22.39467"	Near N¼ corner (in SW¼) section 32 T23N R09W. In a person's yard in the Manton Mountain development.
1931	SELMA	PL0521	N 44° 19' 37.03075"	W 085° 32' 49.27320"	In section 5 of T22N R10W, Selma Township.
1931	HARRIETTA	PL0525	N 44° 14' 34.62415"	W 085° 41' 38.55850"	In section 6 T21N R11W, Henderson Township.
1931	BRIER HILL	PL0523	N 44° 21' 57.63308"	W 085° 40' 46.01952"	In NW¼ of NW¼ of section 29 of T23N R11W, Antioch Township.
1916 reset in 1961	I 14 RESET	PL0223	N 44° 24' 23.25644"	W 085° 23' 49.02240"	SW¼ of section 3 of T23N R09W, Cedar Creek Township (Manton City). In the Manton school yard.
1980	CADILLAC MUNICIPAL TANK	PL0516	N 44° 15' 25.63688"	W 085° 23' 44.05975"	Section 34 of T22N R09W, Haring Township (City of Cadillac). 200 feet south of E. North Street. Under the Cadillac water tank, across the street from McKinney School.
1980	CAD	PL0517	N 44° 15' 29.30166"	W 085° 23' 44.83134"	In Diggins Park in NW¼ of section 34, T22N R09W. Lost.
1980	CADILLAC CABLE TV MAST	PL0513	N 44° 13' 16.57914"	W 085° 24' 06.01391"	In NE ¼ of section 16, T21N R09W. Near Cable TV tower near DNR office.
1980	83102 (cooperative base network)	AA8095	N 44° 24' 37.50143"	W 085° 41' 56.42960"	In SW¼ of section 6, T23N R11W, Hanover Township. NE of the intersection of M-42 and M-37.
1980	CADILLAC AIRPORT BEACON	PL0518	N 44° 16' 51.24890"	W 085° 24' 46.60885"	Was at the Cadillac Airport Beacon light. Now in the yard of the Cadillac Airport aviation maintenance building.
1980	CAD AZ MK	PL0519	N 44° 16' 50.86572"	W 085° 24' 47.01204"	Was at the Cadillac Airport 18.6 feet north-northeast from entrance to airport lounge. (NW ¼ of section 28 T22N R09W?) Now in the yard of the Cadillac Airport aviation maintenance building.
1991	CABERFAE	PL0587	N 44° 13' 22.61618"	W 085° 41' 59.71424"	Near SW corner of section 7 T21N R11W, Henderson Township. At the NE corner of the intersection of S. 13 Road & M-55.
1991	MEAUWATAKA	PL0590	N 44° 21' 23.87602"	W 085° 36' 44.84613"	Near CENTER SOUTH 1/16 corner of section 26 T23N R11W, Antioch Township. At the SW corner of the intersection of N. 21½ Road and M-115.

<sup>79</sup>National Geologic Survey; "National Geologic Survey Database" Internet page URL <http://www.ngs.noaa.gov/>; National Oceanographic and Atmospheric Administration.



Year Monu-mented	Designation	PID	Latitude	Longitude	Location
1993	83203	PL0625	N 44° 15' 29.21930"	W 085° 23' 44.80464	In NW¼ of SW¼ of section 34 of T22N R09W, Haring Township (Cadillac City). In Diggins Park on the top of the hill just west of McKinney School, north and across the street from the Cadillac City water tower.
1993	83201	PL0623	N 44° 12' 44.54055"	W 085° 24' 11.97824"	In the NE¼ of section 16, T21N R09W, Clam Lake Township. Near Mackinaw Trail and U.S.-131 Freeway viaduct. South of Mackinaw Trail Middle School.
1993	83205	PL0627	N 44° 19' 48.48308"	W 085° 24' 13.67796"	In the SE¼ of section 4 T22N R09W, Haring Township. In future U.S.-131 freeway right-of-way.
1993	83204	PL0626	N 44° 19' 18.55269"	W 085° 23' 53.29903"	In NE¼ of section 9 T22N R09W, Haring Township. In future U.S.-131 freeway right-of-way.
1993	83202	PL0624	N 44° 15' 09.62015"	W 085° 21' 47.53562	In SE¼ of section 35 T22N R09W, Haring Township. On north side of M-55 and U.S.-131 freeway.
1993	57200	PL0621	N 44° 15' 08.12349"	W 085° 20' 09.44220"	In NW¼ of section 6 T21N R08W, Missaukee County. SE corner of intersection of Seeley Road (S. 49 Road) and M-55.
1994	CAD C	AA8100	N 44° 16' 41.99475"	W 085° 25' 15.47659"	NE ¼ of NE ¼ of section 29 of T22N R09W, Haring Township (Cadillac City). In the Wexford County Airport, north of and midway along the runway.

In 1936, the Cadillac Area Chamber's new directions led to forming a partnership with the Forest Service and CCC for the creation of the Caberfae Ski Area. The private ski area was developed on public lands and provided an opportunity for Cadillac to be a year-round resort attraction. This was coupled with the Chamber's major push to promote the area in Detroit, Chicago, Cleveland, Cincinnati, and St. Louis.

During the Great Depression, the B. F. Goodrich Company moved into the Acme Motor Truck Company building in 1937. The fact that B. F. Goodrich Company came to Cadillac would have a lasting impact on future industries and labor force skills in the Cadillac area—with 1/3 of today's workforce employed in industries stemming from Goodrich's operation, 40 years after it closed. The immediate impact was that it changed the entire thinking, living and outlook for the community. In retrospect, B. F. Goodrich Company opening a plant in Cadillac is one of the most significant events in the area's history.

Just before the start of World War II, the Cadillac Area Chamber of Commerce started a campaign called "Plan For a Plan." However this effort was overshadowed by the war (1941-1945), with long term strategies for post war development and public improvements.

In the late 1940s and early 1950s, public schools in Wexford County began combining. Prior to this time the traditional one-room country school house was common with the Cadillac Schools under the jurisdiction of the Cadillac City Council. Consolidated school districts were formed in Wexford County: Mesick Schools included, among others, Springville, Minor, Clark and Haddo districts. Manton Schools consolidated 15 small districts. Forest View (Hoxeyville) also became a consolidated district before combining with the Cadillac Area Public Schools (formerly

Fractional School District for Haring and Clam Lake). A complete inventory of the one-room schools in Wexford has been compiled by the Wexford County Historical Society, *Rural Schools of Wexford County* © 1981.

In the 1950s, the Cadillac Area Manufacturers Association (Cadillac Industrial Fund) was created through the efforts of the Chamber. The idea for creation of the Manufacturers Association was a product of Cadillac merchants. Merchants realized that to be successful – have more shoppers – there needed to be a growing number of base, or export-producing jobs<sup>80</sup>. The idea was to create more base job wage earners who in turn shop in Cadillac.

When the B. F. Goodrich company closed in 1959, the company left behind the work force, management skills, and entrepreneurs which led to the creation of Cadillac Rubber & Plastics, Inc., Cadillac Molded Rubber, Michigan Rubber Products, and Brooks + Perkins.

In 1969, the U.S.-131 [freeway] Area Development Association was started. The Association's purpose was to promote construction of U.S.-131 as a limited access freeway to and past Wexford County.

The idea to create a Downtown Development Authority (DDA), in the early 1970s, was a product of Cadillac area industrialists. Here the realization was a community's downtown is its "front door" and is important to attract people to an area. Attraction of people to an area is

<sup>80</sup>As used here "export producing jobs," or "base" jobs means jobs which result in a product being sent out of the community and thus bringing money into the area. Such jobs commonly include industrial/manufacturing, agriculture, forestry, tourism, extraction/mining, and most recently information technology. Secondary jobs, or jobs created through a "ripple effect" include activity in the economic sectors of retail, services, wholesale, transportation.



important, not just for tourism, but also to attract entrepreneurs to bring their industries to Cadillac. What attracts a tourist also attracts an industrialist. This same concept is what led to the creation of the Cadillac Area Visitors Bureau to promote the area for tourism, conventions, and so on.

The necessary symbiotic relationship between industry, commercial, and tourism has been historically a part of Cadillac's heritage. The realization one can not afford to retain a quality environment without a strong economic base, and one can not retain a strong economic base without a quality environment is rare in Michigan communities.

There were national influences on Wexford County, also. This can best be summarized by quoting a brief essay.<sup>81</sup>

How did sprawl come about? Far from being an inevitable evolution or a historical accident, suburban sprawl is the direct result of a number of policies that conspired powerfully to encourage urban dispersal. The most significant of these were the Federal Housing Administration and Veterans Administration loan programs which, in the years following the Second World War, provided mortgages for over eleven million new homes. These mortgages, which typically cost less per month than paying rent, were directed at new single-family suburban construction.<sup>82</sup> Intentional or not, the FHA and VA programs discouraged the renovation of existing housing stock, while turning their back on the construction of row houses, mixed-use buildings, and other urban housing types. Simultaneously, a 41,000-mile interstate highway program, coupled with federal and local subsidies for road improvement and the neglect of mass transit, helped make automotive commuting affordable and convenient for the average citizen.<sup>83</sup> Within the new economic

framework, young families made the financially rational choice: Levittown. Housing gradually migrated from historic city neighborhoods to the periphery, landing increasingly farther away.

The shops stayed in the city, but only for a while. It did not take long for merchants to realize that their customers had relocated and to follow them out. But unlike America's prewar suburbs, the new subdivisions were being financed by programs that addressed only homebuilding, and therefore neglected to set aside any sites for corner stores. As a result, shopping required not only its only distinct method of financing and development but also its own locations. Placed along the wide high-speed collector roads between housing clusters, the new shops responded to their environment by pulling back from the street and constructing large freestanding signage. In this way the now ubiquitous strip shopping center was born.

For a time, most jobs stayed downtown. Workers traveled from the suburbs into the center, and the downtown business districts remained viable. But, as with the shops, this situation could not last; by the 1970s, many corporations were moving their offices closer to the workforce – or, more accurately, closer to the CEO's house, as ingeniously diagramed by William Whyte.<sup>84</sup> The CEO's desire for a short commute, coupled with suburbia's lower tax burden, led to the development of the business park, completing the migration of each of life's components into the suburbs. As commuting patterns became predominantly suburb to suburb, many center cities became expendable.

While government programs for housing and highway promoted sprawl, the planning profession, worshiping at the altar of zoning, worked to make it the law. Why the country's planners were so uniformly convinced of the efficacy of zoning – the segregation of the different aspects of daily life – is a story that dates back to the previous century and the first victory of the planning profession. At that time, Europe's industrialized cities were shrouded in the smoke of

<sup>81</sup>Duany, Andres and Elizabeth Plater-Zyberk, and Jeff Speck; "A Brief History of Sprawl"; "What is Sprawl, and Why?" *Suburban Nation, The Rise of Sprawl and the Decline of the American Dream*; North Point Press; New York; 2000; ISBN 0-86547-557-1; pages 7-12.

<sup>82</sup>Kenneth Jackson, *Crabgrass Frontier*, 205-8. "Quite simply, it often became cheaper to buy than to rent" (205). Interestingly, Jackson notes that "the primary purpose of the legislation... was the alleviation of unemployment, which stood at about a quarter of the total work force in 1934 and which was particularly high in the construction industry" (203).

<sup>83</sup>*Ibid.*, 249. The Interstate Highway act of 1956 provided for 41,000 miles of roadway, 90 percent paid for by the federal government, at an initial cost of \$26 billion (249-50). Jackson notes that, "according to Senator Gaylord Nelson of Wisconsin, 74 percent of government expenditures for transportation in the United States in the postwar generation went for highways as opposed to 1 percent for urban mass transit" (250). Still, "the government pays seven times as much to support the operation of the private cars as to support public transportation" (Jane Holtz Kay, "Stuck in Gear," D.). The preference in Washington for roads over rails was due in no small part to influence peddling by the auto industry, as continues to be the case. With and without the government's blessing, the automakers have a history of mercenary acts, the most notorious of which was portrayed in the film, *Who Framed Roger Rabbit?* In what Jim Kunstler describes as a "a (continued...)"

<sup>83</sup>(...continued) systematic campaign to put streetcar lines out of business all over America," a consortium of auto, tire, and oil companies purchased and tore up over one hundred streetcar systems nationwide, an act for which General Motors was ultimately convicted of criminal conspiracy and fined a grand total of \$5,000 (James Howard Kunstler, *The Geography of Nowhere*, 91-92).

<sup>84</sup>William Whyte, *City: Rediscovering the Center*, 288. Whyte noted: "Of thirty-eight companies that moved out of New York City to better quality-of-life needs of their employees, thirty-one moved to the Greenwich-Stamford area... Average distance from the CEO's home: eight miles." Whyte also documented how, over the next eleven years, those thirty-eight companies that moved experienced less than half the stock appreciation of thirty-six randomly chosen comparable companies that chose to remain in the city (294-95).



Blake's "dark, satanic mills." City planners wisely advocated the separation of such factories from residential areas, with dramatic results. Cities such as London, Paris, and Barcelona, which in the mid-nineteenth century had been virtually unfit for human habitation, were transformed within decades into national treasures. Life expectancies rose significantly, and the planners, fairly enough, were hailed as heroes.

The successes of turn-of-the-century planning, represented in America by the City Beautiful movement, became the foundation of a new profession, and ever since, planners have repeatedly attempted to relive the moment of glory by separating everything from everything else. This segregation, once applied only to incompatible uses, is now applied to every use. A typical contemporary zoning code has several dozen land-use designations; not only is a housing separated from industry but low-density housing is separated from medium-density housing, which is separated from high-density housing. Medical offices are separated from general offices, which are in turn separated from restaurants and shopping.<sup>85</sup>

As a result, the new American city has been likened to an unmade omelet: eggs, cheese, vegetables, a pinch of salt, but each consumed in turn, raw. Perhaps the greatest irony is that even industry need not be isolated anymore. Many modern production facilities are perfectly safe neighbors, thanks to evolved manufacturing processes and improved pollution control. A comprehensive mix of diverse land uses is once again as reasonable as it was in the preindustrial age.

The planners' enthusiasm for single-use zoning and the government's commitment to homebuilding and highway construction were supported by another, more subtle ethos: the widespread application of management lessons learned overseas during the Second World War. In this part of the story, members of the professional class – called the Whiz Kids in John Byrne's book of that name – returned from the war with a whole new approach to accomplishing large-scale tasks,

centered on the twin acts of classifying and counting. Because these techniques had been so successful in building munitions and allocating troops, they were applied across the board to industry, to education, to governance, to whoever the Whiz Kids found themselves. In the case of cities, they took a complex human tradition of settlement, said "Out with the old," and replaced it with a rational model that could be easily understood through systems analysis and flow charts. Town planning, until 1930 considered a humanistic discipline based upon history, aesthetic, and culture, became a technical profession based upon numbers. As a result, the American city was reduced into the simplistic categories and quantities of sprawl.

Because these tenets still hold sway, sprawl continues largely unchecked. At the current rate, California alone grows by a Pasadena every year and a Massachusetts every decade.<sup>86</sup> Each year, we construct the equivalent of many cities, but the pieces don't add up to anything memorable or of lasting value. The result doesn't look like a place, it doesn't act like a place, and, perhaps most significant, it doesn't feel like a place. Rather, it feels like what it is: an uncoordinated agglomeration of standardized single-use zones with little pedestrian life and even less civic identification, connected only by an overtaxed network of roadways. Perhaps the most regrettable fact of all is that exactly the same ingredients – the houses, shops, offices, civic buildings, and roads – could instead have been assembled as new neighborhoods and cities. Countless residents of unincorporated counties could instead be citizens of real towns, enjoying the quality of life and civic involvement that such places provide.

There are elements of the above essay which hold true for every community in the United States. This presentation is not to present sprawl as "good" or "bad" but to convey a history of how it came about in the United States and in Wexford County. In the Wexford County area this was seen with housing starts in townships surrounding the county's two cities. In the Cadillac area this was followed with a movement of commercial activity outside the city (mainly retail and service to the north and office and medical services to the south). This took the form of a general reduction of commercial enterprises in other towns and villages. For more discussion on sprawl see page 87.

<sup>85</sup>The strict separation of housing types actually hints at a more insidious cause of sprawl, economic discrimination, or sometimes simple racism. In the words of F.J. Popper: "The basic purpose of zoning was to keep Them where They belongs – Out. If They had already gotten in, then its purpose was to confine Them to limited areas. The exact identity of Them varied a bit around the country. Blacks, Latinos, and poor people qualified. Catholics, Jews, and Orientals were targets in many places" (Peter Hall, *Cities of Tomorrow*, 60). It has been well documented by Robert Fishman and others how racism was a large factor in the disappearance of the middle class from the center city ("white flight"), and how zoning law clearly manifests the desire to keep away what one has left behind.

<sup>86</sup>Data given by Nelson Rising at the second Congress for the new Urbanism, Los Angeles, May 21, 1994. From 1970 to 1990, Los Angeles grew 45 percent in population and 300 percent in size (Christopher Leinberger, Robert Charles Lesser & Co. original research). According to the *Population Environment Balance* newsletter, we pave an area equal to the size of the state of Delaware every year. All told, seven thousand acres of forests, farms, and countryside are lost to sprawl each day, totaling well over 50,000 square miles since 1970 (Will Rogers, *The Trust for Public Land* membership letter, 1-2).



In 1978, fire destroyed the Safety Mate Boat plant owned by the Winn family. The family purchased the company in 1975. The company was rebuilt as FourWinns and employs 500 in 1999.

In the 1990s the state of Michigan started a "Remonumentation" program in cooperation with participating counties. Wexford is a participating county to use state funding to relocate the original 1837-1852 GLO survey monument locations in Wexford county and restore them with new monuments in their original locations. All land surveys done today are based on those GLO corner locations as the starting point.

## Wexford County Historic Sites List.

FOR more detail on each site connect to the Internet site <http://www.state.mi.us/mdos/michsite/srchsite.cfm?T=24758>.

### National Register list

- **Cadillac City Hall** (P25397) 201 North Mitchell Street, Cadillac.
- **Cobbs, Frank J. House** (P25401) 407 East Chapin Street, Cadillac.
- **Elks Temple Building** (P25402) 122 South Mitchell Street, Cadillac.
- **Masonic Temple Building** (P3518) 122-126 North Mitchell Street, Cadillac
- **Mitchell, Charles T., House.** (P25404) 118 North Shelby Street, Cadillac.
- **Shay Locomotive.** (P25405) Cass Street, in the city park, Cadillac.

### State Register Listed

- **Battle of Manton informational designation** (P25406) Rotary Park on U.S.-131 south of Griswald Street, Manton.
- **Caberfae Ski Resort Company informational site** (P25410) Caberfae Road, South Branch Township.
- **Cadillac Public Library** (P25398) 127 Beech Street, half block east of Mitchell Street, Cadillac.
- **Clam Lake Canal** (P25403) Northeast of 6093 M-115, Cadillac.

- **Cobbs and Mitchell Mill No. 1 site** (P25399) 329 South Street at Lake Cadillac, Cadillac.
- **Cobbs and Mitchell, Inc. Building** (P25400) 100 East Chapin, west of Mitchell Street, Cadillac.
- **First Wexford County Courthouse site** (P25411) Northwest corner of State and Manistee Streets, (M-37 and West No. 14 Road), Sherman (Wexford Township).
- **Greenwood Disciples of Christ Church** (P25408) 7303 North 35 Road, Greenwood Township.
- **Manton Fire Barn and City Hall** (P25407) Southeast corner of West Main and State Street, Manton.

### County Historic List

- **Indian Trail** from Lake Cadillac to Grand Traverse Bay.
- **Site of First School in Wexford County, Cornell-District #1 1865-1945.** Northwest corner of W. 4 Road and N. 11 Road, Section 2 of Wexford Township.
- **Site of Civilian Conservation Corps (CCC) Camp Axin (Camp # 1661) 1933-1942.** About 0.3 miles west of S. 25 Road on the south side of Caberfae Highway (M-55), Section 13, Henderson Township.
- **Hoxeyvill's first Post Office, "Clay Hill."** July 20, 1870-November 20, 1878 located in the Henderson House. Section 6/7, Henderson Township.
- **Harrietta Fish Hatchery**
- **Coates Highway** (W 30 Road, S 23 Road, W and E 34 Road (Boon Road)).

### Municipality Historic List

- **Cadillac Central Residential Area** being studied as a possible state/federal historic district.

## Opinion Survey on Historic Sites

Support for protecting and enhancing historic structures took third place (behind protecting groundwater and protecting lakes and rivers) in the survey of Wexford Residents.

### Level of Support for Measures to Guide Land Use and Environmental Protection: Percentage Distributions and Means

	Mean <sup>87</sup>	Strongly Favor	Favor	Oppose	Strongly Oppose	Don't Know
Designating and protecting sites of historical or cultural interest	1.65	37.6	56.4	3.0	0.5	2.5

<sup>87</sup>The "strongly favor" response is given the numeric code of 1; "favor," is coded 2; "oppose" is given the code of 3; and "strongly oppose" is coded 4. "Don't know" responses are excluded when the mean is calculated.



Support for protecting sites of historical/cultural interest, is reasonably high, although the percentage of residents who "strongly favor" each of these measures is less than the percentage strongly favoring the protection of water

quality in the county. Roughly one third of respondents "strongly favor" "designating and protecting sites of historical or cultural interest."



# Wexford County Historic Population Data

MSU Extension, Wexford County; Kurt H. Schindler March 29, 2000

	1870	1874	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000
<b>Wexford County 1869</b>	650	2,917 <sup>1</sup>	6,364	11,278	16,845	20,769	18,218	16,827	17,976	18,628	18,475	19,717	25,102	26,360	30,484
Antioch Township 1869	*	163	114 <sup>2</sup>	470 <sup>3</sup>	657 <sup>4</sup>	640	682 <sup>5</sup>	478	462	448	373	395	618	671	810
Sherman Village	*	*	*	*	427	260	*	*	*	*	*	*	*	*	*
Boon Township 1875	*	*	115	764	955 <sup>6</sup>	1,153	591	505	637	475	410	457	500	562	670
Harrietta Village 1891	*	*	*	*	419	336	226	149	208	152	119	132	139	157	169
Cadillac City 1874	*	*	2,213	4,461	5,997	8,375	9,750	9,570	9,855	10,425	10,112	9,990 <sup>7</sup>	10,199 <sup>8</sup>	10,104 <sup>9</sup>	10,000 <sup>10</sup>
Cedar Creek Township 1873	*	248	553 <sup>11</sup>	1,603	1,937	2,129	1,405 <sup>12</sup>	436	498	455	534	692 <sup>13</sup>	1,010	1,013	1,489 <sup>14</sup>
Cherry Grove Township 1872	*	101	275	216	417	481	403	268	382	583	695	835	1,517	1,763	2,328
Clam Lake Township 1872	*	1,047	620	881	1,009	954	825	670	750	792	1,017	1,084 <sup>15</sup>	1,658 <sup>16</sup>	1,739 <sup>17</sup>	2,238 <sup>18</sup>
Cleon Township 1868	*	94 <sup>19</sup>	270	* <sup>20</sup>	*	*	*	*	*	*	*	*	*	*	*
Colfax Township *1869	172	246 <sup>21</sup>	375	463	678	754	576	536	511	459	398	374	602	556	763
Concord Township 1879-1880	*	*	171	*	*	*	*	*	*	*	*	*	*	*	*
Greenwood Township 1873	*	136	112 <sup>22</sup>	197	375	432	209	195	254	205	162	155	297	372	542
Hanover Township 1869	112	242 <sup>23</sup>	154 <sup>24</sup>	209 <sup>25</sup>	477 <sup>26</sup>	812 <sup>27</sup>	509 <sup>28</sup>	372	377	323	351	373	665	826	1,200
Buckley Village 1905	*	*	*	*	*	464	352	236	217	194	247	244	357	402	550
Haring Charter Township 1873	*	199	728 <sup>29</sup>	319	322	418	406	551	629	935	1,059	1,387	2,523 <sup>30</sup>	2,501	2,962
Henderson Township 1871	*	75	194	138	208	253	180	115	110	99	107	120	140	162	176
Liberty Township 1874	*	*	109	274	423	370	284	243	285	320	272	334	542	641	800
Manton City 1877	*	*	314	661	895	1,069	793	1,008	1,006	1,085	1,050	1,107 <sup>31</sup>	1,212	1,161	1,221 <sup>32</sup>
Selma Township 1870	*	138	233	242	446	823	533	285	468	542	598	749	1,289	1,607	1,915
Slagle Township	*	*	*	*	460 <sup>33</sup>	486	323	336	315	254	202	286	406	470	569
South Branch Township 1880	*	*	*	176	310	380	221	195	238	173	187	210	276	306	330
Springville Township *1869	107	103 <sup>34</sup>	150 <sup>35</sup>	306	1,244 <sup>36</sup>	1,390 <sup>37</sup>	748 <sup>38</sup>	590	693	673	636	799	1,191	1,339	1,673 <sup>39</sup>
Mesick Village 1901	*	*	*	*	*	510	318	303	327	359	304	376	374	406	447 <sup>40</sup>
Wexford Township *1869	259	219	419	559	930 <sup>41</sup>	919	573 <sup>42</sup>	474	506	382	312	370	457	567	798
<b>Benzie County</b>	2,184		3,433	5,237	9,685	10,638	6,947	6,587	7,800	8,306	7,834	8,593	11,205	12,200	15,998
Grand Traverse County	4,443		8,422	13,355	20,479	23,784	19,518	20,011	23,390	28,598	33,490	39,175	54,899	64,273	77,654
Kalkaska County	424		2,937	5,160	7,133	8,097	5,577	3,799	5,159	4,597	4,382	5,272	10,952	13,497	16,571
Lake County	548		3,233	6,505	4,957	4,939	4,437	4,066	4,798	5,257	5,338	5,661	7,711	8,583	11,333
Manistee County 1855	6,074	8,471	12,532	24,233	27,856	26,690	20,899	17,409	18,447	18,524	19,042	20,393	23,019	21,265	24,527
Missaukee County	130		1,553	5,048	9,308	10,606	9,004	6,992	8,034	7,458	6,784	7,126	10,009	12,147	14,478
Osceola County	2,093		10,777	14,630	17,859	17,889	15,221	12,806	13,309	13,797	13,595	14,838	18,928	20,146	23,197



1. Wexford County lost territory to the creation of Missaukee County in 1871.
2. Antioch Township lost territory to the creation of Summit (Boon) f1875, Concord f1879.
3. Antioch Township gained territory when Concord Township ceased to exist in 1880.
4. Sherman Village was created in 1900 in Wexford, Hanover, Springville and Antioch Townships.
5. Sherman Village ceased to exist in 1910 in Wexford, Hanover, Springville and Antioch Townships.
6. Harrietta Village (formerly Harriette, Glaston) was created in 1891 in Boon and Slagle Townships.
7. Cadillac City gained territory from annexation from Clam Lake Township.
8. Cadillac City gained territory from annexation from Clam Lake and Haring Townships.
9. Cadillac City gained territory from annexation from Clam Lake Township.
10. Cadillac City gained territory from annexation from Haring Charter Township and Clam Lake Township.
11. Manton Village was created in 1877 within Cedar Creek Township.
12. Cedar Creek Township lost territory to the reorganization of Manton Village, f 1877, into Manton City in 1910.
13. Cedar Creek Township lost territory to annexation to Manton City.
14. Cedar Creek Township lost territory to annexation to Manton City.
15. Clam Lake Township lost territory to annexation to Cadillac City.
16. Clam Lake Township lost territory to annexation to Cadillac City.
17. Clam Lake Township lost territory to annexation to Cadillac City.
18. Clam Lake Township lost territory to annexation to Cadillac City.
19. Wexford County gained territory when Cleon Township was added to Wexford County in 1873.
20. Wexford County lost territory when Cleon Township was removed from Wexford County in 1881.
21. Colfax Township lost territory to the creation of Thorpe (Selma) f1870, Cherry Grove f1872, Clam Lake f1872, Haring f1873.



22. Greenwood Township lost territory to the creation of Liberty f1874.
23. Hanover Township lost territory to the creation of Greenwood f 1873.
24. Hanover Township lost territory to the creation of Concord f1879.
25. Hanover Township gained territory when Concord Township ceased to exist in 1880.
26. Sherman Village was created in 1900 in Wexford, Hanover, Springville and Antioch Townships.
27. Buckley Village was created in 1905 in Hanover Township.
28. Sherman Village ceased to exist in 1910 in Wexford, Hanover, Springville and Antioch Townships.
29. Haring Township lost territory to the reorganization of Clam Lake Village, f 1874, into Cadillac City in 1877.
30. Haring Township lost territory to annexation to Cadillac City.
31. Manton City gained territory from annexation from Cedar Creek Township.
32. Manton City gained territory from annexation from Cedar Creek Township.
33. Harrietta Village (formerly Harriette, Glaston) was created in 1891 in Boon and Slagle Townships.
34. Springville Township lost territory to the creation of Henderson f1871, Antioch f1872.
35. Springville Township lost territory to the creation of South Branch f1880.
36. Sherman Village was created in 1900 in Wexford, Hanover, Springville and Antioch Townships.
37. Mesick Village was created in 1901 in Springville Township.
38. Sherman Village ceased to exist in 1910 in Wexford, Hanover, Springville and Antioch Townships.
39. Springville Township lost territory to annexation to Mesick Village
40. Mesick Village gained territory from annexation from Springville and Antioch Townships.
41. Sherman Village was created in 1900 in Wexford, Hanover, Springville and Antioch Townships.
42. Sherman Village ceased to exist in 1910 in Wexford, Hanover, Springville and Antioch Townships.



Wexford County, during the 1870 Census

Wexford fl 1869	Hanover fl 1869
Springville fl 1869	Colfax fl 1869

Wexford County, during the 1874 special Michigan Census

Cleon Twp fl 1868 (pt. of Wexford 1873-1881)	Wexford fl 1869	Hanover fl 1869	Greenwood fl 1873
			Colfax fl 1869
		Antioch fl 1872	Selma fl 1870 (formerly Thorpe (1870-1871))
			Haring fl 1873
	Springville fl 1869	Henderson fl 1871	Cherry Grove fl 1872
			Clam Lake fl 1872

Wexford County, during the 1880 Census

Cleon Twp fl 1868 (pt. of Wexford 1873-1881)	Wexford fl 1869	Hanover fl 1869	Greenwood fl 1873	Liberty fl 1874
		Concord Twp. 1879-1880		Manton Vill. fl 1877
		Antioch fl 1872	Colfax fl 1869	Cedar Creek fl 1873
		Boon (formerly Summit) fl 1875	Selma fl 1870	Haring fl 1873
				Cadillac City (Formerly Clam Lake Village) fl 1874
	Springville fl 1869	Henderson fl 1871	Cherry Grove fl 1872	Clam Lake fl 1872

Wexford County, at height of the County Seat Battle 1874-c1880s



Cleon Twp fl 1868 (pt. of Wexford 1873-1881)	Wexford fl 1869	Hanover fl 1869	Greenwood fl 1873	Liberty fl 1874
		Concord Twp. 1879-1880		Manton Vill. fl 1877
	Dover fl 1871-c1880s	Antioch fl 1872	Colfax fl 1869	Cedar Creek fl 1873
		Boon (formerly Summit) fl 1875	Selma fl 1870	Haring fl 1873
			Benson fl 1881-c1880s	Cadillac City (Formerly Clam Lake Village) fl 1874
	Springville fl 1869	Henderson fl 1871	Cherry Grove fl 1872	Clam Lake fl 1872

Other townships proposed or attempted to be created, but never were:



Benton (S ½ of Hanover Twp.)  
 West Side (Cedar Creek Twp. west of the rail road track)  
 Wheatland (N ½ of Colfax Twp.)  
 Kysor (6 ½ NW sections of Harding Twp.)  
 Linden (S ¼ of Harding Twp.)  
 Garfield (6 SW sections of Harding Twp.)  
 Long Lake (NE part of Harding Twp.)  
 Copley (center part of Harding Twp.)





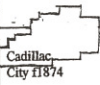
Wexford County, during the 1890 Census

Wexford fl 1869	Hanover fl 1869	Greenwood fl 1873	Liberty fl 1874
			Manton Vill. fl 1877 
	Antioch fl 1872	Colfax fl 1869	Cedar Creek fl 1873
Springville fl 1869	Boon fl 1875	Selma fl 1870	Haring fl 1873
			Cadillac City fl 1874 
South Branch fl 1880	Henderson fl 1871	Cherry Grove fl 1872	Clam Lake fl 1872



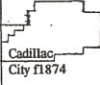
Wexford County, during the 1900 Census

Wexford fl 1869	Sherman Vill fl 1900-c1910 Hanover fl 1869	Greenwood fl 1873	Liberty fl 1874
			Manton Village fl 1877 
Springville fl 1869	Antioch fl 1872	Colfax fl 1869	Cedar Creek fl 1873
	Harrietta Vill fl 1891		
Slagle f c1890s	Boon fl 1875	Selma fl 1870	Haring fl 1873
			Cadillac City fl 1874 
South Branch fl 1880	Henderson fl 1871	Cherry Grove fl 1872	Clam Lake fl 1872

Wexford County, during the 1910 Census

	Buckley Village 1905		
Wexford fl 1869	Sherman Vill fl 1900-c1910 Hanover fl 1869	Greenwood fl 1873	Liberty fl 1874
Mesick Vill. fl 1901 			Manton Vill. fl 1877 
Springville fl 1869	Antioch fl 1872	Colfax fl 1869	Cedar Creek fl 1873
	Harrietta Vill fl 1891		
Slagle f c1890s	Boon fl 1875	Selma fl 1870	Haring fl 1873
			Cadillac City fl 1874 
South Branch fl 1880	Henderson fl 1871	Cherry Grove fl 1872	Clam Lake fl 1872

Wexford County, during the 1920 Census

	Buckley Village 1905		
Wexford fl 1869	Hanover fl 1869	Greenwood fl 1873	Liberty fl 1874
Mesick Vill. fl 1901 			Manton City fl 1877 
Springville fl 1869	Antioch fl 1872	Colfax fl 1869	Cedar Creek fl 1873
	Harrietta Vill fl 1891		
Slagle f c1890s	Boon fl 1875	Selma fl 1870	Haring fl 1873
			Cadillac City fl 1874 
South Branch fl 1880	Henderson fl 1871	Cherry Grove fl 1872	Clam Lake fl 1872



Wexford County, during the 1930 Census

	Buckley Village 1905		
Wexford fl 1869	Hanover fl 1869	Greenwood fl 1873	Liberty fl 1874
Mesick Vill. fl 1901			Manton City fl 1877
Springville fl 1869	Antioch fl 1872	Colfax fl 1869	Cedar Creek fl 1873
	Harrietta Vill fl 1891		
Slagle f c 1890s	Boon fl 1875	Selma fl 1870	Haring fl 1873
			Cadillac City fl 1874
South Branch fl 1880	Henderson fl 1871	Cherry Grove fl 1872	Clam Lake fl 1872

Wexford County, during the 1940 Census

	Buckley Village 1905		
Wexford fl 1869	Hanover fl 1869	Greenwood fl 1873	Liberty fl 1874
Mesick Vill. fl 1901			Manton City fl 1877
Springville fl 1869	Antioch fl 1872	Colfax fl 1869	Cedar Creek fl 1873
	Harrietta Vill fl 1891		
Slagle f c 1890s	Boon fl 1875	Selma fl 1870	Haring fl 1873
			Cadillac City fl 1874
South Branch fl 1880	Henderson fl 1871	Cherry Grove fl 1872	Clam Lake fl 1872

Wexford County, during the 1950 Census

	Buckley Village 1905		
Wexford fl 1869	Hanover fl 1869	Greenwood fl 1873	Liberty fl 1874
Mesick Vill. fl 1901			Manton City fl 1877
Springville fl 1869	Antioch fl 1872	Colfax fl 1869	Cedar Creek fl 1873
	Harrietta Vill fl 1891		
Slagle f c 1890s	Boon fl 1875	Selma fl 1870	Haring fl 1873
			Cadillac City fl 1874
South Branch fl 1880	Henderson fl 1871	Cherry Grove fl 1872	Clam Lake fl 1872

Wexford County, during the 1960 Census

	Buckley Village 1905		
Wexford fl 1869	Hanover fl 1869	Greenwood fl 1873	Liberty fl 1874
Mesick Vill. fl 1901			Manton City fl 1877
Springville fl 1869	Antioch fl 1872	Colfax fl 1869	Cedar Creek fl 1873
	Harrietta Vill fl 1891		
Slagle f c 1890s	Boon fl 1875	Selma fl 1870	Haring fl 1873
			Cadillac City fl 1874
South Branch fl 1880	Henderson fl 1871	Cherry Grove fl 1872	Clam Lake fl 1872



Wexford County, during the 1970 Census

	Buckley Village 1905		
Wexford fl869	Hanover fl869	Greenwood fl873	Liberty fl874
Mesick Vill. fl1901			Manton City fl877
Springville fl869	Antioch fl872	Colfax fl869	Cedar Creek fl873
	Harrietta Vill fl891		Haring fl873
Slagle f c1890s	Boon fl875	Selma fl870	Cadillac City fl874
South Branch fl880	Henderson fl871	Cherry Grove fl872	Clam Lake fl872

Wexford County, during the 1980 Census

	Buckley Village 1905		
Wexford fl869	Hanover fl869	Greenwood fl873	Liberty fl874
Mesick Vill. fl1901			Manton City fl877
Springville fl869	Antioch fl872	Colfax fl869	Cedar Creek fl873
	Harrietta Vill fl891		Haring fl873
Slagle f c1890s	Boon fl875	Selma fl870	Cadillac City fl874
South Branch fl880	Henderson fl871	Cherry Grove fl872	Clam Lake fl872

Wexford County, during the 1990 Census

	Buckley Village 1905		
Wexford fl869	Hanover fl869	Greenwood fl873	Liberty fl874
Mesick Vill. fl1901			Manton City fl877
Springville fl869	Antioch fl872	Colfax fl869	Cedar Creek fl873
	Harrietta Vill fl891		Haring fl873
Slagle f c1890s	Boon fl875	Selma fl870	Cadillac City fl874
South Branch fl880	Henderson fl871	Cherry Grove fl872	Clam Lake fl872

Wexford County, during the 2000 Census

	Buckley Village 1905		
Wexford fl869	Hanover fl869	Greenwood fl873	Liberty fl874
Mesick Vill. fl1901			Manton City fl877
Springville fl869	Antioch fl872	Colfax fl869	Cedar Creek fl873
	Harrietta Vill fl891		Haring fl873
Slagle f c1890s	Boon fl875	Selma fl870	Cadillac City fl874
South Branch fl880	Henderson fl871	Cherry Grove fl872	Clam Lake fl872







## Chapter B3: Michigan Trend Future

THIS section is based on the findings of *Michigan's Trend Future Reports and Patterns on the Land: Our Choices--Our Future*<sup>88</sup> as orally presented by Mark A. Wyckoff. When Governor John Engler first became governor a major study of the relative risk of various environmental threats to people was done. The results of the study, *Relative Risk Management Report*,<sup>89</sup> surprised many. The first two highest risks listed were the "lack of integrated and coordinated land use planning" and the "degradation of urban environment."

The *Trend Future Reports* was a study done by the Michigan Society of Planning Officials (MSPO) to further document and provide data about the two items listed in the *Relative Risk Management Report*. The MSPO study documents recent trends, statistics, and facts on Michigan land and resource use. The 20-month project produced eleven working papers. The combined comprehensive report is 1,500 pages. The intent is to report the trends, not to judge if those trends are "good" or "bad." If the people view a trend as undesirable, then effort toward changing the way things are done would be needed.

There are 10 key findings that may be most important in the *Michigan Trend Future Report*. Those findings are<sup>90</sup>:

1. Sprawl is the principal problem in Michigan and its going to get worse if current trends continue.

- ▶ Sprawl is auto-dependent, energy consumptive, and has a high ratio of road surface to development serviced. It lacks a functional relationship to the land around it.
- ▶ Sprawl is the result of population migration from central cities and older suburbs to newer suburbs and rural areas. The State, as a whole, has a modest population growth with very little in-migration from other states.
- ▶ Continued sprawl will result in the conversion of

1.5 to 2 million acres of land to urbanized use to accommodate only 1.1 million more persons and only 900,000 new jobs from 1990 to 2020. This is a land area equal to the total land in urban use in 1978 that serviced 9.2 million people. Thus, an 11.8 percent population increase will result in between 63 and 87 percent more land used.

- ▶ Three regions face the greatest risk, southeast Michigan, western Michigan (Grand Rapids, Holland, Muskegon), and the greater Grand Traverse Bay region of which Wexford County is on the southern fringe. But sprawl will have significant impacts throughout most of the lower peninsula.

2. Sprawl is difficult to observe in its earlier form as it begins with invisible land fragmentation (if there were fences around the perimeter of every newly divided property, you would see it). Continued fragmentation of resource lands (especially farmland, forest land and mineral lands) will result in steady declines in the relative significance of agriculture, forestry, and mining industries and will also negatively impact the tourism industry. While the job loss will be small, the income loss will be very great (at least \$120 million/year just for agriculture alone).

3. Michigan residents are nearly completely auto-dependent and can expect significant increases in vehicle miles traveled, number of automobiles and trucks, commute times, and continued decreases in car pooling and mass transit. New developments are not pedestrian or bicycle friendly and, even if they were, they are usually not connected to nearby places to shop, work, or play.

4. There will be significant increases in infrastructure costs and declining ability to meet those costs. Governor James Blanchard's Infrastructure Coalition in 1986 identified \$34 billion dollars in unmet needs (\$13 billion were critical, \$12 billion were essential, and \$9 billion were optimal). An American Public Works Association (APWA) survey revealed in 1991 there was \$16 billion in immediate needs identified by survey respondents (which only represented 22% of Michigan's population). It appears that the principle reasons these costs are rising so much is because we are not following a "pay as we grow" principle. We are building in places that utilize unused capacity in public facilities but not collecting to pay for their maintenance or improvement. Replacement cost financing is virtually non-existent. Michigan has started to bond for road maintenance (deferring the cost of pothole filling to future taxpayers) instead of using bonding only on new infrastructure investments.

<sup>88</sup> *Michigan's Trend Future Reports and Patterns on the Land: Our Choices--Our Future*; Michigan Society of Planning Officials, September 1995 (including *Trend Future Reports* working papers (and summaries) on "Land Use Issues"; "Agricultural Trends"; "Natural Resources and the Environment Trends"; "Public Lands and Forestry Trends"; "Tourism and Recreation Trends"; "Water, Sewer and other Infrastructure Trends"; "Jobs and the Built Environment Trends"; "Demographic Trends"; "Institutional Structure for Land Use Decision Making in Michigan".)

<sup>89</sup> Michigan Department of Natural Resources (Public Sector Consultants, Inc.); *Relative Risk Analysis Project*, July 30, 1992.

<sup>90</sup> Written by Mark A. Wyckoff, President of Planning and Zoning Center and primary consultant to the Michigan Society of Planning Officials for preparation of the *Michigan Trend Future Reports*.



5. There will be continued significant declines in population in older central cities and increases in families in poverty and in concentrations of racial minorities. Middle class families that can afford to leave often do when their children reach middle school. Those that cannot afford to leave, remain.

6. There will be continued decreases in biodiversity mostly as a result of many new forest openings and increased conflicts over multi-use of public lands. This means there will be fewer bird and animal species and narrower range of common plants. These changes will reduce the qualities of rural lands that make them attractive for residential living, as well as for tourism and recreation.

7. The present institutional structure does not work and cannot work without reform.

- ▶ There are too many uncoordinated decision bodies, there is no common framework for existing related laws, the current system promotes parochialism instead of cooperation, and metropolitan and regional public interests are often ignored. These effects are evident in lack of integrated and coordinated land use planning between communities, between agencies, and between levels of government.
- ▶ Every new law takes a piecemeal look at issues that are related to many others and to other laws, yet no serious effort has been made to integrate existing laws around a common framework. There are no established statewide goals to guide lawmaking or land use decisions in Michigan as in other states.
- ▶ With a few short term exceptions, the State has only engaged in functional area planning since the early 70's (transportation plans, historic preservation plans, air quality plans, etc.). Thus, a wide variety of cross cutting issues have been ignored.

8. The present mix of interest groups is not sufficient to resolve current structural defects. They do not share a common understanding of land use and its relationship to environmental protection and economic development. There is no entity in Michigan, as in other states, whose advocacy focus and reason for being is improved land use decision making.

9. The brightest light is the current attention on land use issues, but legislative efforts are for the most part premature--the necessary understanding and support base is not in place nor up-to-speed. Over 50 bills on land use were pending before the 1996 session of the Michigan Legislature. In 1994, there were three. There have not been more than three for any of the years 1980-1995. There is a great risk of failure in current reform initiatives because of the lack of a coordinated effort, the lack of a core advocacy group, and the lack of broad based public knowledge about the issues.

10. Current trends are creating a myriad of problems that will be laid at the feet of future generations who will have

fewer choices available to deal with them.

## First Period

MICHIGAN'S land use history can be divided into three periods. The first was the initial European settlement from 1840-1900. During this period, the land went from 95% forest to 5% forest. Population rose from 212,267 to 2.4 million in 1900. Rural population was three times the urban population. There was a resource based economy during which lumbering, fishing and mining were done all at the same time. The land was surveyed and the federal government sold land. The government survey dictated the settlement pattern. Michigan was the first state to reserve the money from the sale of land in section 16 of each tier-range to be used for education.

Because one's income goes up if resources are exploited fast, a motivation to exploit resources took place. The role of the state in this period was to establish government, dispose of land, and help build infrastructure; mainly roads. Population growth increased steadily from 1860-1970.

## Second Period

THE second period was the industrialization/urbanization period from 1900 to 1960. Population per household was 3.47 in 1960. Urban population was 6 million and rural population was almost 2 million. There was a large migration into Michigan due to the auto industry. The auto industry fueled state and urban growth. Suburbs started to emerge around the areas of auto industrial activity. Seasonal homes became popular. Michigan is second in the United States for seasonal homes.

This is, in part, due to Michigan having over 10,000 inland lakes and over 3,000 miles of Great Lakes shoreline. There are only three states with more lakes than Michigan. Michigan continues to build second homes at a very high rate. Manufacturing reached its peak in the mid 1960's. The role of the State in this period became that of a manager of state lands as result of tax reversion in the 1930's. Seven million acres of land were tax reverted lands, becoming today's public recreation lands.

The first State Planning Commission was formed in the 1930s-1940s. This Commission planned for building infrastructure and promoted economic development and planning. A post war plan was developed and was very successful. Approximately \$5 million was allocated in 1946 to local governments to plan for infrastructure. Twice the amount of available grants were applied for. Members of the Michigan Legislature did not like the idea that the legislature did not give out the grants. Thus, the Legislature canceled the program and developed the predecessor to the Department of Commerce (now the Jobs Commission and Consumer and Industry Services).



## Third Period

THE third period of 1960 to present was the post-industrial age. For the first time ever, new infrastructure was being built while at the same time old infrastructure is being abandoned. By 1990, urban population was 6 million and rural population was 3 million.

In the 1970's, Michigan's population remained steady rather than growing. During 1960 to present, the state's population rose to 9.3 million from 7.8 million but population per household fell to 2.66. This is a significant drop in people per household, but is now normal in the United States. This is due to the older population (people without children) and a higher divorce rate. In the 1980's, the number of new households increased from 2.7 to 3.4 million and population only went up 400,000. People moved to rural areas as well as some other major social shifts occurred.

Freeways were built which allowed long distance commuting in less time. Freeways were politically justified for national defense. There is now one auto per person in Michigan. With fuel rates much less than the rest of the western world, the rise in two income families and increased commute time is much higher than normal.

A resource based economy is affected by the length of the growing season and the effect of Lake Michigan. Farmers do not succeed on northern Michigan sands. The farm land loss from 1982-1990 has been very rapid. Ten acres of farmland is lost every hour of every day. This represents approximately \$130 million lost in potential income in Michigan. The cycle of farmland conversion has a bearing on land patterns. As farmland is sold, the price of land goes up along with increased traffic and complaints. Farm economic price problems are real and farm income does not keep pace.

Often, 10 years after land is divided into 10-acre parcels, the land is divided four times further.<sup>91</sup> Some, from a resource management perspective, view this as wasteful use of land. With use of cluster development, one may still have development and still have resources. If higher income and jobs were generated from the land conversion into homes, it may be okay. But conversion of land into houses does not provide long term jobs or income. Farmers do not use many public services. The additional cost to provide all government services to homes is not fully paid for by taxes on homes.

There is an increased growth of homes on parcels one to nine acres in size. This results in less density of homes per acre: 3.8 homes per acre in 1960 and 1.3 homes per acre in 1990. Division of land in this manner also results in more vehicle miles driven as people have a longer commute to work. Also, one loses options for resource management;

such as land-locked mineral deposits. Oil and gas production has become very important in Michigan. Michigan ranks number seven in the United States for production. Oil and gas have very significant land use impact in lower Michigan. Michigan has an abundance of sand and gravel --enough to supply the eastern seaboard for 200 years-- but it is difficult to get to.

From 1970 to 1990, Michigan population has grown slowly. From 1982 to 1985, Michigan peaked in out-migration and in 1970 to 1980 had 0.4% growth. Movement within the state was from cities to suburbs and townships. This was pushed by crime, race, congestion, infrastructure, and rising taxes in cities. The movement was pulled by open space, inexpensive land, government land use policies, low taxes, new houses, and schools in the same areas. This movement was also spurred by state and federal policies such as tax deductions on interest and taxes, infrastructure grants at favorable rates, school financing, deferred capital gains tax, G-I Bill, FHA financing, lower homestead taxes, and other subsidies. This movement is not always a family making choices on their own but is based on external and government forces.

Most people moving into Michigan today have moved out of Michigan previously. People also tend to stay within Michigan more than any other state and move around within Michigan. Baby boomers are now in their 40's and 50's. There are more older people in 1990 than in 1950. The elderly population will continue to grow. Elderly people tend to live more in urban and rural areas.

The built environment investment cycle is new business development with new employment opportunities. This leads to population increases from the attraction of the new jobs. That, in turn, leads to supporting development, such as services, and further commercial development also occurs. Urban disinvestment can occur with declining private business and declining public maintenance of infrastructure or little new investment which leads to fewer new jobs, or decline in jobs which leads to population decreases and less support in development. People tend to move as a result of investment or lack of investment. For example, Detroit has about 1 million residents supporting (paying tax for) infrastructure designed for 2 million people. Michigan ranks 48<sup>th</sup> in the United States in per capita expenditures on roads. In 1992, Michigan took out a 20 year bond to fix potholes. Bonds are usually used for building something new.

## The Future

THE employment shift is out of industry into services (medical and tourism had the biggest increases in Michigan).

New land use patterns are characterized by (1) low density (detached homes with large lots) with most open space as yards; (2) decentralized commercial and governmental services; (3) auto dependency; (4) independent

<sup>91</sup> As this document was written, the Michigan Subdivision Control Act was amended which may change this land division pattern. The act was amended after this analysis was done.



living units; (5) infrastructure now following (not leading) development; (6) serious incompatibilities between land uses such as farming, mining and forestry; (7) new rural residents wanting urban services; (8) resisting consolidation and annexation with a "last one in" mentality, NIMBYism (Not In My Back Yard-ism), and NIMTOFism (Not In My Term Of Office-ism); (9) a shift in political power and (10) there is no longer a relationship between land use and the land resource base in rural areas.

By 2020, Michigan's population is expected to increase from 9.4 to 10.4 million. Most of the increase in population will occur along the I-94 freeway corridor. Ottawa County is second in the state in growth in terms of real dollars. Ottawa is a non-diverse economy, heavily dependent on agriculture and ranks fourth in the state for agricultural production. Agriculture will no longer exist in Ottawa County if the current trends continue. This might be seen as an example of what will happen or repeated elsewhere in Michigan.

In 1960, 63% of the population lived in the city and 33% lived in townships. In 1990, 56% of the population lived in the city and 41% lived in townships. This trend is likely to continue.

A big population change is expected in northern lower peninsula of Michigan. Seasonal home development in northwest Michigan is still strong. Construction in Leelanau County was the largest export-employment base. Seasonal homes in the Upper Peninsula and northern lower peninsula are expected to be strong in the future.

The number of persons per square mile has spread northward from 1960 to 1990. The upper part of the lower peninsula of Michigan has more public and state land and less private lands. Density of development on just private lands will actually be as high in northern lower Michigan as it is now in southern Michigan. People are more spread out and pay for the lack of density in terms of the cost of development.

Townships will see suburbanization of landscaping. There used to be a firm line between urban and rural areas. Homes, sprawl, and spot commercial zoning have made that land change over time. Once forest or agricultural lands are divided into less than 40 acres it is never used again for these purposes. Approximately 1,000 acres are needed to farm grain; 400-500 acres are needed for a dairy farm; no less than 40 acres are needed to harvest timber.

Big employment gains in Michigan are expected to be in the metropolitan areas. Approximately 250,000 million in southeast Michigan and 100,000 new jobs in Kent County are seen. Michigan's economy has rebounded much faster than when these projections were done so they may be even greater numbers.

## Land Use Decision Making

THE many governmental units in Michigan that can practice planning and zoning may be the biggest risk to

the environment in Michigan. There are over 1,800 government units with land use authority in Michigan of which 1,500 actually engage in planning and zoning. This makes things difficult. Each authority plans as if they were an island. Communities are not required to work with each other. The average number of government units with land use authority in other states are 300-500. The two top items which were revealed from the Michigan *Relative Risk Management Report* were the "lack of integrated and coordinated land use planning" and the "degradation of urban environment." It took a while for the *Relative Risk Management Report* to catch on, but has: The Republican Task Force (1994) on land use found that land use is a bigger issue than they had anticipated. From 1976 to 1992, legislature did not have more than 3 land use bills before them. In 1993, there were 12 land use bills and in 1995, there were 54 bills. Half of these bills proposed to give local government tools to manage growth. These bills provide tools which have become basics in other states.

Michigan's land use laws are old and outdated. Michigan has over 70 land use statutes that were written but never coordinated. The planning and zoning acts have not been coordinated, the Subdivision Control Act, just recently (1997) updated as the Land Division Act, was one of the causes of Michigan's problems, the Wetland Act is not being administered the way it was intended to be.

The former Subdivision Control Act caused 10 acre parcel divisions to occur; people do this to avoid the platting process. It is estimated that there are over 10,000 parcels which are 170 feet by 2,640 feet in Michigan. The most difficult thing to do in land redevelopment is to reassemble land to try to buy small parcels from individual owners to make large parcels.

Currently, the state can not override local planning and zoning decisions. A County Planning Commission is in a unique position to review local zoning and approve the local plans. The County Planning Commission is the only logical place for these reviews to happen. It is important that local government participate with the County. Units of government need to see if their current zoning is the problem or the solution to land use problems.

## Michigan Land Resource Project

THE Michigan Land Resource Project<sup>92</sup> can be viewed as a partial update to the Michigan Trend Futures reports, as well as focusing on land use trend impacts on agriculture, natural resource-based recreation and tourism, minerals industry and forest industry. The following is quoted from the report's Summary of Findings:

This report takes a look at our projected growth patterns into the future and then analyzes our resource-based industries in light of those

<sup>92</sup>Levy, Diane (editor); Michigan Land Resource Project, Public Sector Consultants, Inc.; November 2001; pp. 9-14.



patterns. These projections are based on current trends; however, there are several variables that can affect land use patterns. For example, a new highway may significantly alter where and how development occurs, or a policy change may affect the amount of land dedicated to forestry or agriculture. Even shifting gasoline prices can influence tourism patterns and can certainly affect transportation costs for mining, agriculture, and forestry. This project offers a possible glimpse into the future but by no means provides a crystal ball examination, and it is recognized that this paper raises more questions than it answers. The [Land Transformation Model] LTM can be further refined and more research can be done to develop more accurate projections. There are no easy solutions, but we can start to incorporate our values into our personal and collective decision making and seriously consider the ecological and economic integrity of the land in our decisions and policies, both now and for the future.

Presented below are the major findings of the project, first industry specific and then general.

### Agriculture

- As the Number 2 industry in the state, agriculture (including food processing) provides needed stability to the state's economy and aesthetics associated with open spaces. A trademark of Michigan agriculture has been its diversity, with substantial sectors in livestock, field crops, specialty food crops, and ornamentals.
- The close interface between agriculture and urban areas has a positive influence on farm households but presents challenges for farmers to control nuisance factors, especially odor from livestock operations. This problem is intensified with urban sprawl.
- Using the LTM projections to 2040, Michigan will lose about 15 percent of its farmland with about a 25 percent loss in metropolitan counties.
- Michigan agriculture is in danger of losing some of its diversity as the fruit area is projected to decline by about 25 percent, dry bean acreage by 36 percent, potato acreage by 16 percent, and vegetable acreage by 13 percent by 2040. Acres in corn, soybeans, wheat, and sugar beets are not expected to change appreciably. Acres in ornamentals will continue to expand.
- Over 40 percent of the land in farms is in hay, pasture, woodland, and other less intensive uses. Losses of these areas will approach one-third by the year 2040.
- In spite of the projected declines in crop acreage, increased yields per acre will more than offset reduced areas harvested, with few exceptions.
- Dairying will shift out of metropolitan counties and cow numbers will drop by at least 25 percent. Total milk production, however, will continue to increase.
- For the livestock industries to remain viable in Michigan, major adjustments will be needed to comply with environmental and nuisance restrictions. With rapid structural change, conversion to larger units, and with new technology, remaining producers will be more capable in making this adjustment. If not, production will shift to less populated areas in other states.
- The number of farms in Michigan is projected to decline from 42,000 in 2001 to about 24,000 by 2040. The number of very small farms will not change much, but dramatic reductions will be noted in farms of 50 to 500 acres. Farms over 1,000 acres will increase significantly. The output of Michigan agriculture will continue to increase as farmers extract more product from less land and less labor.
- The main rationale for public policy dealing with the impact of urban sprawl on agriculture is to preserve open space and the character of Michigan's landscape.
- A major dilemma is how to prevent conversion of farmland without diminishing farm equities. In the 1990s, the annual gain in farm real estate values was 65 percent greater than the average annual net farm income.
- Pressures for farmers to sell to non-farm buyers is illustrated by appraisers' evaluation of farmland in the Southern Lower Peninsula in 2001; \$1,839 per acre for farming, \$7,423 per acre for residential, \$19,495 per acre for commercial/industrial use, and \$2,739 per acre for recreation. Programs such as the Purchase of Development Rights will be needed to slow down the exodus of farmland.

### Natural Resource-Based Recreation and Tourism

- The importance of natural resource-based recreation and tourism to the quality of life in Michigan dwarfs its economic contributions
- Many people now own wildlife habitat and waterfront property, which act as a gateway to natural resource recreation. Backyards managed for wildlife, pond construction, large lots of former agricultural land, woodlots, and re-flooded wetlands, all



provide wildlife habitat. Wildlife viewing, nature study, fishing, and hunting can be encouraged in such environments.

- Michigan has approximately 6,000 miles of snowmobile trails. Approximately half of those trails are on public lands while the other half are on private lands with voluntary landowner permission formalized by short-term lease arrangements. The trail system is only continuous if every landowner leases his/her property. As land fragmentation increases, more and more easements are needed to connect trails. For motorized trail activities, breaks in trails due to non-renewed leases will be the legacy of fragmentation.
- The great challenge for hunters will be finding huntable lands and gaining access. Opportunities for hunting will shift away from the countryside near major population centers as new neighbors arrive and safety zones are created. With a safety zone of 450 feet from a structure off limits to hunting without landowner permission, this means that every 30 x 30 foot structure constructed removes 15.6 acres of land for hunting.
- Angling for cool water species in lakes is likely to benefit from fragmentation because more people than ever will have direct access to water, through their own property or that of a friend or relative. However, there will be increasing conflicts over access to and quality of many of Michigan's premiere trout (cold water) streams as the banks become more densely developed and vacant land and seasonal homes become permanent homes.
- The amount of impervious surfaces, introduction of pollutants to waterways, rise and fall of floodwaters, and changes in water chemistry all damage aquatic environments and can reduce fish populations of desired species and species diversity. Cold water species are especially vulnerable to changes in environmental quality, such as increases in temperature and pollutants and decreases in dissolved oxygen levels -- all of which are exacerbated by sprawl. Homes with poorly engineered septic systems constructed along northern Michigan streams coupled with the replacement of native vegetation with fertilized lawns can spark rapid deterioration of blue-ribbon trout waters.
- The golf industry will continue to expand, often becoming the last open space in many communities outside of public parks.
- As people move to destination resort areas to take advantage of the amenities and

views, those areas may lose the character and quality that defined them as a destination. It is often reported that the journey to the destination resort is an important element of the entire trip.

## Mining

- Pressure on the ability to produce local minerals will certainly affect the state's economy. These minerals will become more expensive if they must be shipped from farther away. This expense will raise the cost of building and construction activities as well as other industrial production, making for less profit and less competitive industries -- all to the detriment of Michigan.
- Accessibility to land for mineral exploration, development, and production is a principle factor that is directly and negatively impacted by urbanization, sprawl, and land fragmentation. Existing extraction sites come under pressure as urbanization occurs around them and their neighbors engage in increasing conflict with them over their operations and access. There is an even stronger impact on siting new mineral extraction operations. Potential mineral producers must compete against other land uses that are often perceived as having direct value to the local community and, accordingly, higher political value.
- There is a clear link between urbanization and the production of sand and gravel and crushed stone. Their production is dependent on local economic patterns and therefore should be highly influenced by urbanization and local land use patterns. Construction materials cannot be economically transported more than about 40 miles. Increased urbanization and development will clearly create additional need for these building materials, but these industries are not welcome in urban, suburban, or resort areas. In a sense, these industries will build themselves out of business, as they are closed down or squeezed out of developed areas.
- The drilling of oil and gas wells is another segment of the minerals industry likely to be affected by land fragmentation. The most relevant land-based constraint is ownership of mineral rights. Conflicts with surface owners add to the costs and difficulty of exploring for, developing, and producing oil and gas. Increased urbanization and land fragmentation will make it more difficult and costly for the industry to continue.
- The counties that recently lost clay and salt



production show signs of an increase in population density, built-up areas, and other signs of urban sprawl, hence there may be some effect of increased land fragmentation on production of these minerals. Increased land values and increased land fragmentation on production of these minerals can drive up the costs of production and may already have contributed to the loss in production in these counties.

- Peat production is likely to be sensitive to land fragmentation and especially to perceptions about the environmental effects of its production. This is a problem since peat-producing counties are forecasted to have greater urbanization growth than the state average.

### Forestry

- Due to the abandonment of farmland and its conversion to forest, forestland acreage will appear to increase in the future. However, the LTM data shows a 1-3 percent decrease to 2020 and a 2-7 percent decrease to 2040.
- Forestland loss will be greatest in southern Lower Michigan, up to 13 percent in 2020 and up to 25 percent in 2040.
- Encroaching urbanization may force forest managers to alter practices, i.e., discontinue pesticide use or prohibit scheduled, regenerative burns. This will most certainly delay timber harvesting or restrict the frequency of harvests. It may also add costs if restrictions are imposed on harvesting methods.
- The primary effect of development on forestland in the future is fragmentation. As land is divided and sold, contiguous, large tracts of land become small parcels of many owners, who are not likely to manage a

forest for harvesting. In order to keep harvesting costs down, access to large parcels is necessary. As the land becomes more fragmented, the price for harvesting Michigan's timber will increase.

### General

- As now-rural areas become more populated, we can reasonably expect further confrontations from residents who are unfamiliar with the individuals and companies who gain their livelihood from the land, or with industry practices and procedures (e.g. cutting of foreland, manure spreading on agricultural fields, excavation of minerals, trucking associated with these industries). There will also be growing societal intolerance for participation in some natural resource-based recreation.
- For all the land-based industries, growing distances between supporting industries and businesses make it more difficult to conduct business efficiently. Transportation and production costs are a major economic factor for these industries. If those costs increase, the profitability of the industry declines.
- Most of the assets of the land-based industries are not in products or facilities, but in the land. While the value of products may fluctuate, the value of the land for its development potential is steadily increasing in both absolute and real terms. Much of that development potential relates to opportunities to live in or near natural resources. We are experiencing a phenomenon where agriculture, forestry, and mining are unable to compete with the value of the land and therefore get priced out of the area, while development fragments land once dedicated to those activities.



