TOWN OF HARRISON

COMPREHENSIVE PLAN

2005

Town of Harrison Town Board

Marathon County Conservation, Planning & Zoning Department

URS, Inc. MSA

September 2005

Town of Harrison Conditions and Issues

September 2005

Town of Harrison Conditions and Issues

Elements

1. Introduction and Summary	1
2. Demographics	
3. Natural Resources	7
4. Land Use	13
5. Transportation	20
6. Utilities	25
7. Housing	28
8. Cultural Resources	
9. Community Facilities	35
10. Parks	
11. Economic Development	40
12. Intergovernmental Cooperation	

List of Tables

i

Table 2-1: Demographic Change, 1970-2000	2
Table 2-2: Population by Age Group, 2000	3
Table 2-3: Population Projections - 2000-2030	3
Table 2-3b: Population Projections - 2000-2030	3
Table 2-4: Household Projections - 2000-2030	
Table 2-4b: Household Projections - 2000-2030 Err	or!
Bookmark not defined.	
Table 2-5: Educational Attainment	5
Table 2-6: Household Income Levels, 2000	5
Table 2-7: Occupation by Sector, 2000	6
Table 4-1: Land Use Cover Classification, 2000	14
Table 4-2: Land in Forest Preservation Programs (in	
acres), 1998 – 2002	15
Table 4-3: Public Owned Land (in acres), 1998-2002	16
Table 4-4: Per Acre Assessed Land Values (in dollars),
1998 – 2002	18
Table 5-1: Summary of Pavement Conditions	23
Table 7-1: Number of Housing Units by Type and	
Tenure	
Table 7-2: Changes in Housing Stock	
Table 7-3: Age of Community Housing Stock	29
Table 7-4: Physical Housing Stock	30
Table 7-5: Median Housing Value	30
Table 7-6: Range of Housing Values	30
Table 7-7: Housing Affordability	
Table 8-1: Known Cemeteries	34
Table 9-1: Unified School District of Antigo Enrollme	nt
Table 9-2: Child Care Referrals	37

	Marathon County Top 10 Industry Groups n Number of Employees (March 2001)42
Table 11-2:	Population and Employment by Sector,42
Table 11-3:	Employment Projections in 5-Year
	Percent Change in Employment, 2000- 43

List of Figures

- Figure 3-1: Rivers and Floodplains
- Figure 3-2: Outstanding and Exceptional Resource and Impaired Waters
- Figure 3-3: Wetland Types
- **Figure 3-4: Depth to Groundwater**
- Figure 3-5: Depth to Bedrock
- Figure 3-6: Soil Association
- Figure 3-7: Prime Farm Soils
- Figure 3-8: Slopes
- Figure 4-1: Existing Land Use/Land Cover
- Figure 4-2: Farm Preservation Contracts and Existing Agricultural Zoning
- **Figure 5-1: Functional Classification**
- Figure 5-2: WISLR Ratings
- Figure 5-3: WISLR Road Surface
- **Figure 5-4: Regional Transportation**
- Figure 6-1: Depth to Bedrock
- Figure 6-2: Suitable Soils For Septic Tank Absorption
- Figure 6-3: Watersheds
- Figure 6-4: Existing Powerline Route
- Figure 9-1: School and Library Facilities
- **Figure 9-2: Police Service Districts**
- **Figure 9-3: Fire Service Districts**
- Figure 9-4: Hospitals and Clinics
- Figure 10-1: Regional Recreation Facilities

List of Acronyms

303 (d) list—waters designated as "impaired" under section 303 (d) of the U.S. Clean Water Act.

AADT—Annual Average Daily Traffic

AHI—Architecture & History Inventory (a database of the Wisconsin Historical Society).

BMPs—Best Management Practices

CCC—Civilian Conservation Corps (a 1930s construction and conservation program).

CCR&R—Child Care Resource and Referral Network

CDBG—Community Development Block Grant

CES—Cropland Evaluation System (Marathon County)

Comm 83—Chapter 83 of the Wisconsin Administrative Code under the Department of Commerce, setting standards for regulation of private sewage systems.

CRP—Conservation Reserve Program

CTH—County Trunk Highway

CWA—Central Wisconsin Airport

DCPZ—Department of Conservation, Planning and Zoning (Marathon County)

DWD—Department of Workforce Development

EMS—Emergency Medical Services

ERW—Exceptional Resource Waters, a designation by the Wisconsin Department of Natural Resources.

FCL—Forest Crop Law

FEMA—Federal Emergency Management Agency

FIRM—Flood Insurance Rate Maps

HOME—Home Investment Partnerships Program

HUD—U.S. Department of Housing and Urban Development

LHOG—Local Housing Organization Grant

LOS—Level of Service (related to amount of traffic and congestion on a roadway, measure from Level A, no congestion and freely moving traffic, to Level F, traffic gridlock).

LWRMP—Land and Water Resource Management Plan (Marathon County)

MFL—Managed Forest Law

MPO—Wausau Area Metropolitan Planning Organization

NCHC—North Central Health Care

NCWRPC—North Central Wisconsin Regional Planning Commission

NHI—Natural Heritage Inventory

NRHP—National Register of Historic Places

NTC—Northcentral Technical College

ORW—Outstanding Resource Waters, a designation under the U.S. Clean Water Act.

PASER—Pavement Surface Evaluation Rating

PMP—Pavement Management Plan

SHPO—State Historic Preservation Office

STF Data—Summary Tape File, referring to data files of the 2000 U.S. Census.

STH—State Trunk Highway

TIP—Transportation Improvement Program (Marathon County)

USDA—United States Department of Agriculture

UW-MC—University of Wisconsin—Marathon County

WDA—Wisconsin Department of Agriculture

WDNR—Wisconsin Department of Natural Resources

WDOA—Wisconsin Department of Administration

WDOT—Wisconsin Department of Transportation

WHEDA—Wisconsin Housing and Economic Development Authority

WISLR—Wisconsin Information System for Local Roads

WPS—Wisconsin Public Service Corporation

1. Introduction and Summary

The Town of Harrison's *Conditions and Issues Report* documents the current conditions in the community and identifies primary issues or concerns that the Town may want to address in the future. This report includes information about Harrison in the areas of demographics, natural resources, land use, transportation, utilities, housing, cultural resources, community facilities, parks, economic development, and intergovernmental cooperation. The report provides a foundation for development of the final plan, which will outline policies and actions that the Town can take to address identified issues and guide future growth in Harrison. Some key findings in this report include:

- The Town of Harrison is located in northeast Marathon County with Langlade County on the north and east and STH 52 on the south boundary. The Town has experienced population decline and growth over the past three decades, and totaled 418 in 2000, down by 4 persons since 1970.
- Development potential in the Town is limited because much land is in public ownership. Approximately 6,500 acres are in the County-owned Harrison-Hewitt Forest Unit, and another 200 acres along the Plover River are held by the Wisconsin Department of Natural Resources (WDNR).
- High bedrock levels in the southwest edge of Harrison make water availability unpredictable and may limit waste disposal options. Harrison also has wetland areas

- throughout the Town that limit residential development locations.
- Harrison residents are concerned about preserving the natural environment, including woodlands, wetlands and open spaces.
- Harrison residents want to manage new development and preserve the rural character of the Town. They are examining whether there is a need for any regulations or ordinances to manage growth.
- Residents within Harrison use individual on-site waste disposal systems and have private wells. High bedrock levels often require the use of holding tanks for waste disposal systems.
- Most housing in Harrison is single family and is likely to remain that way.
- Intergovernmental coordination for Harrison includes fire and emergency service agreements, road maintenance with Hewitt, and some potential for other shared services with neighboring Towns.

2. Demographics

This analysis is intended to describe the existing demographics of the Town of Harrison and identify the major demographic trends impacting Harrison over the next few decades. Both Marathon County and the State of Wisconsin are also listed for comparison.

Population and Households

Historical Trends

As shown in Table 2-1, Harrison has experienced decline and then increases in population growth over the past three decades. Harrison lost population between 1970 and 1980, losing 68 people and declining to a total of 354. Growth has been steady since then, with the 2000 total of 418 persons almost back to the 1970 total of 422. Marathon County and the State of Wisconsin both grew by over 20 percent over the same time period. Household growth over the past decade was modest, at 11 percent, lower than for either the County or State. The average household size declined slightly since 1990, but still remained higher than that of the County or State.

Table 2-1: Demographic Change, 1970-2000

I GDIC E II	9		3 -1			
					%	%
					Change	Change
					1970 to	1990 to
	1970	1980	1990	2000	2000	2000
Total						
Population						
Harrison	422	354	383	418	-1%	+9%
County	97,457	111,270	115,400	125,834	+29%	+9%
State	4,417,821	4,705,767	4,891,769	5,363,675	+21%	+10%
Total						
Households						
Harrison	131	144	129	143	+9%	+11%
County	29,771	37,865	41,534	47,402	+59%	+14%
State	1,328,804	1,652,261	1,822,118	2,084,544	+57%	+14%
Average						
Household						
Size						
Harrison	3.22	2.46	2.97	2.92	-9%	-1%
County	3.27	2.90	2.75	2.60	-20%	-5%
State	3.22	2.35	2.68	2.50	-22%	-7%

Source: Wisconsin Department of Administration

Table 2-2 describes the percentage of population in various age groups. Harrison is somewhat similar in percentage breakdown to the County and State. Harrison had higher percentages of young children (under age 9) and fewer persons over age 75. Harrison had more people in the age groups from 25 to 44, which contributed to the Town's lower median age of 34.5, as compared to 36.3 and 36.0 for the County and State, respectively.

Table 2-2: Population by Age Group, 2000

Age Group	Percent of Population						
	Harrison	County	State				
Under 5 years	6.9	6.4	6.4				
5 to 9 years	9.3	7.5	7.1				
10 to 14 years	7.9	8.0	7.5				
15 to 19 years	7.7	7.7	7.6				
20 to 24 years	4.5	5.4	6.7				
25 to 34 years	14.8	13.0	13.2				
35 to 44 years	17.9	16.5	16.3				
45 to 54 years	11.2	13.9	13.7				
55 to 59 years	4.8	4.8	4.7				
60 to 64 years	4.3	3.8	3.8				
65 to 74 years	6.5	6.4	6.6				
75 to 84 years	3.1	4.8	4.7				
85 years and over	1.0	1.7	1.8				
Median Age	34.5	36.3	36.0				

Source: Wisconsin Dept. of Administration, 2000

Population Forecasts

Table 2-3 indicates population projections for Harrison and for Marathon County. These projections were completed by the North Central Wisconsin Regional Planning Commission (NCWRPC) (2003). Projections were based on the population from the 2000 Census, and projected in five-year increments until 2030. The percentage change in population growth from 1980 to 2000 was used as the basis for future growth. Table 2-3 uses the moderate growth rate. Estimates were completed for low growth (-5%), and high growth (+5%) as well. The moderate growth percent change from 2000 to 2030 for Harrison is 14.1 percent, slightly higher than the projected State change of 13.3 percent.

Table 2-3: Population Projections – 2000-2030

	Total Population by Year						
	2000	2005	2010	2015	2020	2025	2030
Harrison	418	428	438	447	457	467	477
County	125,834	128,632	131,430	134,217	137,022	139,820	142,618

Source: Marathon County 2030 Population and Employment Projections Methodology Report, NCWRPC, 6/03

Table 2-3b shows population projections completed by the Wisconsin Department of Administration (WDOA), Demographic Services Center. The WDOA population projections are recognized as Wisconsin's official population projections in accordance with Wisconsin Statute 16.96. These projections are based on the same historical time period as those developed by NCWRPC, however more recent years carry a greater weight in the WDOA's projected populations. Additionally, the WDOA projections are based on the historical population trends of individual communities, whereas the NCWRPC projections are based on trends in the planning sub-areas.

Table 2-3b: Population Projections – 2000-2030

	Total Population by Year							
	2000	2005	2010	2015	2020	2025	2030	%
								change
Harrison	418	446	473	500	527	554	566	+35%
County	125,834	130,242	134,504	138,836	143,308	147,112	150,255	+19%

Source: Wisconsin Department of Administration

2030 numbers projected from 2025 DOA estimates based on countywide growth rate rates

The NCWRPC projections provide a baseline to determine trends in the sub-area. They are useful in identifying future population beyond the borders of individual communities. The WDOA projections are more useful at the local municipality level. The WDOA projections in Table 2-3b show a more rapid growth rate in Harrison than the NCWRPC projections. The

WDOA projects a population of 472 by 2010, an increase of 13 percent by the end of the decade.

Household Forecasts

Like the population projections, household projections were also calculated using both NCWRPC and WDOA population data. Table 2-4 indicates projected households for Harrison and for Marathon County. These projections are based on the population projections shown in Table 2-3 divided by the average household size of 2.92 (Table 2-1) in Harrison in 2000. Harrison shows a 14 percent change, or 20 additional households, compared to 13 percent change for Marathon County.

Table 2-4: Household Projections - 2000-2030

	Total Households by Year							
	2000	2005	2010	2015	2020	2025	2030	%
								change
Harrison	143	147	150	153	157	160	163	+14%
County	48,585	49,665	50,745	51,821	52,904	53,985	55,065	+13%

Source: Derived from data in Marathon County 2030 Population and Employment Projections Methodology Report, NCWRPC, 6/03

Table 2-4b includes household projections based on population projections completed by the WDOA and assumes an average persons-per-household of 2.92 in Harrison in 2000. Like the population projections, the WDOA household projections show an increase of 13 percent by the end of the decade.

Table 2-4b: Household Projections – 2000-2030

	Total Households by Year							
	2000	2005	2010	2015	2020	2025	2030	%
								change
Harrison	143	155	168	182	194	206	212	+48%
County	47,702	50,109	52,902	55,589	58,181	60,283	62,035	+30%

Source: Wisconsin Department of Administration

2030 numbers projected from 2025 DOA estimates based on countywide growth rate rates

Education and Income Levels

According to 2000 Census data, 83.2 percent of Harrison residents have a high school education or higher. This compares to 83.8 percent for the County, and 85.1 percent for the State. In Harrison, 7.8 percent of residents have a bachelor's degree or higher. This is slightly lower than the number of persons with a bachelor's degree or higher in the County and State with 18.3 percent and 22.4 percent respectively.

Table 2-5: Educational Attainment (population age 25 and over)

(population age 25 and over)						
	Hari	rison	County	State		
Educational Attainment	Number	Percent	Percent	Percent		
Less than 9th Grade	18	6.7	8.2	5.4		
9th to 12th Grade, No	27	10.1	8.0	9.6		
Diploma						
High School Graduate	121	45.1	38.0	34.6		
Some College, No Degree	60	22.4	18.3	20.6		
Associates Degree	21	7.8	9.2	7.5		
Bachelor's Degree	21	7.8	12.6	15.3		
Graduate or Professional	0	0	5.7	7.2		
Degree						
Percent high school graduate		83.2	83.8	85.1		
or higher						
Percent bachelor's degree or		7.8	18.3	22.4		
higher						

Source: Wisconsin Dept. of Administration, 2000

Median household income for Town of Harrison residents was \$40,192 in 2000. This is lower than Marathon County with a median of \$45,165, and the State overall at \$43,791. Harrison had higher percentages of persons in the \$15,000-\$24,999 income range and the \$35,000-\$49,999 income range than either the County or the State.

Table 2-6: Household Income Levels, 2000

	Harr	ison	County	State
Income Level	Number	Percent	Percent	Percent
Less than	5	3.5	5.9	7.1
\$10,000				
\$10,000 -	5	3.5	5.4	5.8
\$14,999				
\$15,000 -	23	16.2	12.3	12.7
\$24,999				
\$25,000 -	15	10.6	13.1	13.2
\$34,999				
\$35,000 -	48	33.8	19.4	18.1
\$49,999				
\$50,000 -	33	23.2	25.2	22.7
\$74,999				
\$75,000 -	9	6.3	10.5	10.9
\$99,999				
\$100,000 -	4	2.8	5.4	6.4
\$149,000				
\$150,000 -	-	-	1.3	1.5
\$199,999			1.6	1.5
\$200,000 or	-	-	1.6	1.5
More	1.42	100.0	100.0	100.0
Total	142	100.0	100.0	100.0
Households	¢40.102	 	¢45 165	¢42.701
Median	\$40,192	-	\$45,165	\$43,791
Household		[
Income	. 5		2000	

Source: Wisconsin Dept. of Administration, 2000

Employment Characteristics

Table 2-7 illustrates the breakdown, by occupation, of the employed population of Harrison in 2000. The "employed population" is defined as people living in Harrison who are 16 years and older. In 2000, the Town had an employed population of 200. Most residents were employed in

production, transportation and material moving occupations; construction, extraction and maintenance; and management, professional and related occupations.

Employment projections are included in the Economic Development section.

Table 2-7: Occupation by Sector, 2000

Sector	Number	Percent
Management, professional, and	38	19.0
related occupations		
Service occupations	20	10.0
Sales and office occupations	28	14.0
Farming, fishing, and forestry	3	1.5
occupations		
Construction, extraction, and	42	21.0
maintenance occupations		
Production, transportation, and	69	34.5
material moving occupations		
	•	
Total Employed*	200	100

Source: Wisconsin Department of Administration

Demographic Trends

- Harrison has experienced decline and rebounding population growth over the past three decades, with a 1 percent population loss, while the County and State both grew by over 20 percent.
- Household growth over the past decade was lower than for either the County or State. The average household size is 2.92, higher than that of the County or State.

- Harrison had more people in the age groups from 25 to 44, which contributed to the Town's median age of 34.5, as compared to 36.3 and 36.0 for the County and State.
- 83.2 percent of Harrison residents have a high school education or higher, compared to 83.8 percent for the County, and 85.1 percent for the State.
- In Harrison, 7.8 percent of residents have a bachelor's degree or higher, which is lower than the number of persons with a bachelor's degree or higher in the County (18.3 percent) and the State (22.4 percent).
- Median Household income for Harrison was lower at \$40,192 than either the County or State medians.
- Both population and households in Harrison are expected to grow about 14 percent between 2000 and 2030 (NCWRPC projections).
- In 2000, most residents were employed in production, transportation and material moving occupations; construction, extraction and maintenance; and management, professional and related occupations.
- Harrison's changing population Residents noted that Harrison has always had a lot of older residents and that there have not been many people moving in. The population has remained somewhat steady in recent years.

^{* &}quot;Total Employed" represents employed civilian population 16 years and over

3. Natural Resources

Because natural resource features do not follow geo-political boundaries, it is important to consider their patterns and interrelationships on a broader scale. In addition, many of the programs for protecting or mitigating impacts to natural resources are administered at the County, State or Federal level. Thus, an overview of recent county-wide natural resource planning efforts is described below, followed by a description of local natural resource conditions. Of particular interest are geographic areas of the landscape encompassing valued natural resources features grouped below by resource type, including water, soil and biological resources.

Recent Planning Efforts Related to Natural Resources

In the last decade, several plans were prepared by the County specifically to address protection and management of natural resources. These plans may be used to guide local policy and decision making regarding resource management and protection. In addition to the plans listed below, Marathon County and several local communities have adopted park and outdoor recreation plans that discuss natural resource based recreational facilities and protection strategies. These are described in more detail in the Parks section.

 Marathon County Land and Water Resource Management Plan (LWRMP) - In 2001, Marathon County adopted a LWRMP in accordance with Wisconsin Statutes (Wisconsin Act 27, Chapter 92.10). The primary intent of this plan is to identify a vision for natural resource management in Marathon County and outline strategies to protect the quality and quantity of soil and water resources. Marathon County encompasses portions of 22 watersheds. The Wisconsin Department of Natural Resources (WDNR) has ranked these watersheds according to water pollution impacts and designated five as "priority" watersheds to receive special planning and funding through the voluntary. State-funded Priority Watershed Program. The County's Department of Conservation, Planning and Zoning (DCPZ) works with the WDNR to implement the program. Program funding is used to hire staff to assist in developing management plans for each watershed and to provide cost sharing to landowners for implementation of "best management practices" (BMPs) to achieve the program objectives.

- Marathon County 2001 Groundwater Protection Guide This guide is an extension of the efforts established with adoption of the Marathon County Groundwater Plan in 1988. It is intended to guide local and County officials in setting policy. It also serves as a resource of information about groundwater and other natural resources and recommends strategies to address issues related to groundwater protection.
- Marathon County Forest Ten-Year Comprehensive Land Use Plan, 1996-2005 This plan includes recommendations to guide management of forest land in Marathon County in accordance with the County Parks, Recreation, and Forestry Department's mission to manage and protect the County forest on a sustainable basis for

ecological, economic, educational, recreational, and research needs of present and future generations. It provides substantial information on existing forest resources as well as information regarding the roles of the various agencies and regulatory framework related to forest management.

Water Resources

Outstanding Resource Waters (ORW) and Exceptional Resource Waters (ERW) designations are derived from an amendment to the U.S. Clean Water Act, which directed states to identify waters that were largely unaffected by pollution and should remain that way. States were required to develop "anti-degradation" policies to protect these waters from pollution. As a result, wastewater entering an ORW must be as clean as the water in the "outstanding" water body. The anti-degradation policies only apply to point sources of pollution, such as an industrial discharge pipe. However, Wisconsin has other programs in place to control non-point source pollution, such as animal waste and pesticides in farm runoff, urban runoff, and failing septic systems.

The Wisconsin Natural Resources Board also wanted to extend higher levels of protection to top trout waters. As such, the WDNR established a second category of waterways to be protected under the anti-degradation policy; these are the ERW. Wastewater entering ERW must meet minimum clean water standards, although higher standards are encouraged where feasible.

Designated Outstanding Resource Waters (ORW) in Harrison include:

• Plover River from CTH N north (in southeast Harrison)

There are no Exceptional Resource Waters (ERWs) in Harrison.

Water resources that have been significantly degraded are identified as "impaired waters." Four of the 22 watersheds in Marathon County have been identified as "impaired waters" on the "303 (d) list" of the U.S. Clean Water Act. The list identifies waters that do not meet current water quality standards and merit water quality improvement and protection. These waters include:

• Springbrook Creek watershed in the Town of Harrison

Resource management plans for these watersheds are currently being done as part of the Priority Watershed Program, a Statefunded, voluntary program administered by the County. The County's resource management planning efforts are described in more detail in the *Marathon County Land and Water Resource Management Plan* (2001).

Resources in Harrison

Streams/Rivers – Rivers and their tributaries in the Town include the Eau Claire River and a small section of the Plover River in the extreme southeast corner. Harrison is located in the Springbrook Creek watershed, considered one of four impaired watersheds in the County. (Figure 3-1 and Figure 3-2).

Floodplains - Floodplains consist of land likely to be covered by floodwater during the regional (100-year) flood. Floodplain areas are based on information compiled by the Federal Emergency Management Agency (FEMA) on Flood Insurance Rate Maps (FIRM). The floodplain includes the floodway and the flood fringe.

In the Town of Harrison, the major area within the 100-year floodplain is located along the Eau Claire River in the area south and west of Bear Lake Road.

Wetlands – Wetlands in Wisconsin were defined by the State Legislature in 1978 as: "an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic (water-loving) vegetation and which has soils indicative of wet conditions."

Programs in three levels of government - local, State and Federal - regulate activities in wetlands. There are dozens of wetland types in Wisconsin, characterized by vegetation, soil type and degree of saturation or water cover. Some of the more prominent wetland types are:

- Aquatic Bed wetlands contain plants growing entirely on or in a water body no deeper than 6'. Plants may include pondweed, duckweed, lotus and water-lilies.
- Marshes are characterized by standing water and dominated by cattails, bulrushes, pickerel-weed, lake sedges and/or giant bur-reed.

- Sedge or "Wet" Meadows wetlands may have saturated soils, rather than standing water, more often than not.
 Sedges, grasses and reeds are dominant, but look also for blue flag iris, marsh milkweed, sneeze-weed, mint and several species of goldenrod and aster.
- Scrub/Shrub wetlands include bogs and alder thickets and are characterized by woody shrubs and small trees such as tag alder, bog birch, willow and dogwood.
- *Forested* wetlands include bogs and forested floodplain complexes. They are characterized by trees 20 feet or more in height such as tamarack, white cedar, black spruce, elm, black ash, green ash and silver maple.

There are wetlands throughout Harrison, particularly the northern two-thirds of the Town. Wetlands in the northwest section are predominantly scrub/shrub and forested, and located largely within the Harrison-Hewitt Forest Unit of the Marathon County Forest. Wetlands in the northeast are largely forested, although also include some scrub/shrub and emergent/wet meadow, and are primarily associated with the lands along the Eau Claire River. (Figure 3-3).

The Harrison-Hewitt Forest Unit contains the Bitzke Bird Walk, completed in 1992. The Bird Walk passes a number of wetlands and impoundments, and includes interpretive displays and many opportunities for viewing waterfowl.

Groundwater – Depth to groundwater is somewhat variable in Harrison. Depth is shallow through the northwest two-thirds, but becomes progressively deeper toward the southeast

corner of the Town. While groundwater is generally available in volumes large enough for domestic use and scattered development as is more typical in Harrison, residents indicate that in practice, groundwater supply can be unpredictable. Bedrock is high in the southwest section and could increase the difficulty of finding water. (Figure 3-4 and Figure 3-5)

Soil Resources

Soil Types— There are multiple soil associations in Harrison. The northwest Harrison-Hewitt Forest area is characterized by Marathon-Mylrea-Moberg and Loyal-Withee-Marshfield. The southwest quadrant contains a section of Fenwood-Rietbrock-Rozellville, while the southeast corner adjacent to the Plover River has Kennan-Hatley soils. Soil adjacent to the Eau Claire River, running in a swath from southwest to northeast, contains Chetek-Rosholt-Oesterle soils. (Figure 3-6)

Given that the average allowable soil loss rate for Marathon County is 4.4 tons per acre per year, the susceptibility for soil erosion is low, with maximum soil loss of 1.0 - 2.0 tons/acre/year throughout Harrison.

Farm Soils – Figure 3-7 illustrates soils that have been identified as prime farm soils according to the Marathon County Cropland Evaluation System (CES). This system establishes a basis from which one parcel of land can be compared to another. It rates soils on their ability to produce food, feed, forage, and fiber crops. It is based upon the knowledge that soil properties affect yields. The system is non-biased, defendable, and can be consistently applied.

Additional information on Marathon County CES can be obtained from Marathon County DCPZ.

Prime farm soils are concentrated along either side of the Eau Claire River in Harrison, and in a segment of the northwest that is contained in the Harrison-Hewitt Forest Unit. Those soils along the Eau Claire and toward northeast Harrison are more likely to be used for agriculture, while those in the northwest are largely associated with wetland areas.

These class designations refer to the quality of soils for growing crops and are based on United States Department of Agriculture (USDA) classifications. Class 1 soils are the best soils in Marathon County for growing all crops. Class 2 soils are also very good agricultural soils, however, they may be prone to wetness and are therefore less desirable than Class 1 soils. It should be noted that not all prime farm soils are used for farming; as in Harrison, where many of these soils are associated with wetlands. The "prime farm soils" designation simply indicates that these soils are good productive farmland.

Steep Slopes – Steep slopes in Harrison are limited to a few narrow areas along the Eau Claire River in far northeast Harrison, and several small, scattered areas in the southeast near the Plover River. Steep slopes are defined as slopes with gradients over 12 percent. Category D includes areas with slopes between 12 and 20 percent. Category E includes areas where slopes are all greater than 15 percent.

These areas have been identified as steep slopes in the Marathon County Soil Survey. In some instances, this may not reflect actual field conditions. (Figure 3-8)

Biological Resources

Vegetation – Much of Harrison is classified as woodland, according to land cover maps. A band of cropland follows the Eau Claire River, with larger areas of cropland in the northeast. There are also areas classified as other agriculture along CTH Y.

Wildlife Resources and Habitat – Wildlife resources include a variety of game and non-game species of birds, mammals, fish, reptiles and amphibians that typically live in Marathon County. Common types of wildlife include deer, bear, badger, wolf, wild turkeys, raccoon, squirrels, songbirds, waterfowl and raptors. Wildlife resources are abundant in the many undisturbed sanctuaries, refuges, reserves, and scattered habitats located throughout the County. Numerous other species of migrating birds use habitat in Marathon County for food, shelter, and resting stops during seasonal migration.

There is a significant amount of wildlife habitat in Marathon County. In addition to County parks and forest units, major wildlife habitat areas include: the George W. Mead Wildlife Area, the McMillan Marsh State Wildlife Management Area, and Rib Mountain State Park

Harrison also contains roughly two-thirds of the 8,424 acres encompassed by the Harrison-Hewitt Forest Unit, owned by Marathon County. Located in the forest is the Bitzke Bird Walk, completed in 1992. The Bitzke Bird Walk passes a number of wetlands and impoundments and includes interpretive displays and opportunities for viewing waterfowl.

Threatened and Endangered Species - Both aquatic and terrestrial endangered, threatened, or special concern species are present within Harrison. These include:

Communities:

- Northern Dry-Mesic Forest Community In this forest community, mature stands are dominated by white and red pines (*Pinus strobus* and *P. resinosa*), sometimes mixed with red oak (*Quercus rubra*) and red maple (*Acer rubrum*). Common understory shrubs are hazelnuts (*Corylus* spp.), blueberries (*Vaccinium angustifolium* and *V. myrtilloides*), wintergreen (*Gaultheria procumbens*), partridge-berry (*Mitchella repens*); among the dominant herbs are wild sarsaparilla (*Aralia nudicaulis*), Canada mayflower (*Maianthemum canadense*), and cow-wheat (*Melampyrum lineare*). Stands usually occur on sandy loams, sands or sometimes rocky soils.
- Floodplain Forest Community This is a lowland hardwood forest community that occurs along large rivers, usually stream order 3 or higher, that flood periodically. The best development occurs along large rivers in southern Wisconsin, but this community is also found in the north. Canopy dominants may include silver maple (Acer saccharinum), river birch (Betula nigra), green ash (Fraxinus pennsylvanica), hackberry (Celtis occidentalis), swamp white oak (Quercus bicolor), and cottonwood (Populus deltoides). Northern stands are often species poor, but balsam-poplar (Populus balsamifera), bur oak (Quercus macrocarpa), and box elder (Acer negundo) may replace some of the missing "southern" trees. Buttonbush

(Cephalanthus occidentalis) is a locally dominant shrub and may form dense thickets on the margins of oxbow lakes, sloughs and ponds within the forest. Nettles (Laportea canadensis and Urtica dioica), sedges, ostrich fern (Matteuccia struthiopteris) and gray-headed coneflower (Rudbeckia laciniata) are important understory herbs, and lianas such as Virginia creepers (Parthenocissus spp.), grapes (Vitis spp.), Canada moonseed (Menispermum canadense), and poison-ivy (Toxicodendron radicans) are often common. Among the striking and characteristic herbs of this community are cardinal flower (Lobelia cardinalis) and green dragon (Arisaema dracontium).

- Northern Wet Forest Community These weakly minerotrophic conifer swamps, located in the North, are dominated by black spruce (*Picea mariana*) and tamarack (*Larix laricina*). Jack pine (*Pinus banksiana*) may be a significant canopy component in certain parts of the range of this community complex. Understories are composed mostly of sphagnum (*Sphagnum* spp.) mosses and ericaceous shrubs such as leatherleaf (*Chamaedaphne calyculata*), Labrador-tea (*Ledum groenlandicum*), and small cranberry (*Vaccinium oxycoccos*) and sedges such as (*Carex trisperma* and *C paupercula*). The Natural Heritage Inventory (NHI) has split out two entities, identified (but not strictly defined) by the two dominant species (see Black Spruce Swamp and Tamarack Swamp).
- Hard Springs and Spring Runs Community This spring and associated run is a cold water resource with a hard, rocky bottom. This spring is well suited to many rare plant and animal species.

• **Hard Fast Cold Stream Community -** This stream is a cold water, fast-moving stream with a hard, rocky bottom. This stream is well-suited to support a trout population so long as it is not too steep.

Issues

• **Preservation of Natural Resources** – In a 2002 survey, Harrison residents supported preservation of natural areas, including the many woodlands, wetlands and open spaces in the Town

4. Land Use

The Town of Harrison is located in northeastern Marathon County and bordered on the north and east by Langlade County. It lies east of the Town of Hewitt and north of Plover. Main routes to Harrison include STH 52 on the south, CTH G and CTH Y. U.S. 45 (STH 47) is several miles east in Langlade County and leads to Antigo, approximately five miles northeast of Harrison.

Current Pattern of Land Use

Harrison was split by the glacial moraine that separated southeast Marathon County topographically from the rest of the County. The land southeast of the Eau Claire River resembles the towns to the south, with some crop land and the most residential development. The northwest half of the Town is primarily woodland and marsh, with only very scattered residential parcels.

Marathon County is a major landowner in Harrison, with over 8,600 acres (6,500 acres in Harrison) set aside as the Harrison-Hewitt Forest Unit. Over 700 privately-owned acres are set aside under the Forest Crop Law (FCL). The Wisconsin Department of Natural Resources (WDNR) owns approximately 200 acres along the Plover River in extreme southeast Harrison. Major waterways in the Town are the Eau Claire River, the Plover River, Springbrook Creek, and Skulen Pond Creek.

The largest areas of crop land are scattered along the southern boundary and in a band along the east central and northeast sections of the Town. These areas are consistent with areas identified as prime farm land. There are approximately 450 acres of land in Harrison held in Farmland Preservation Contracts.

Residential development is concentrated in the southeast quadrant, along STH 52, CTH HH (the eastern County boundary) and Bear Lake Road. There is a small crossroads settlement at Hogarty at the intersection of CTH Y and STH 52. An air base was situated in southeast Harrison and operated from approximately 1952 to 1976. There are about ten housing units still located there. Industry in Harrison is limited to scattered gravel pits and quarries.

Existing Land Use - For purposes of this report, existing land cover was used as a proxy for existing land use. This was done to achieve consistency in describing existing land uses in the various municipalities participating in the Marathon County comprehensive planning effort. Table 4-1 describes the various land use cover categories and Figure 4-1 illustrates the existing land cover. The acreage and percent of land shown in Table 4-1 were determined from aerial photos and are not intended to be accurate to the parcel level or correspond directly to acreages calculated from plat maps.

Table 4-1: Land Use Cover Classification, 2000

able 4-1: Land Use Cover Classification, 2000								
Land Cover	Description	Acres	% of Total					
Category			Land Area					
Single Family	One family structures, farm	269	1.15					
Residential	residences, mobile homes							
Multi-Family	Multiple family structures with	5	0.02					
Residential	three or more households, condos,							
	duplexes, apartments							
Commercial	Retail stores, taverns, restaurants,	1	0.01					
Services	truck stops, gas stations, farm							
	coops, farm implement dealerships,							
	automobile dealerships, business							
	offices, motels/hotels, offices,							
	telephone/gas company							
Industrial	Saw/paper/lumber mills, dairies,	0	0					
	industrial parks, trucking							
	operations, distribution centers							
Quarries/	Mining operations	29	0.12					
Gravel Pits								
Cropland	Tilled agriculture, prime farmland	3,951	16.85					
Specialty	Ginseng, orchards, vineyards,	3	0.01					
Crops	nurseries, groves, cranberries, etc.							
Other	Fallow, pasture and undetermined	1,001	4.27					
Agriculture	agriculture, power lines and							
	towers, water towers, municipal							
	wells							
Public/Quasi-	Schools, churches, cemeteries,	2	0.01					
Public	town halls, fire departments,							
	National Guard							
Recreation	Ball fields, golf courses,	0	0					
	playgrounds, parks, trails, camp							
	grounds, shooting ranges							
Woodlands	Forested land	10,924	46.58					
Water	Open waters, lakes, ponds, streams,	5,453	23.25					
	rivers, reservoirs, wetlands							
Transportation	Airports, highways, road right-of-	355	1.51					
-	ways, railroads, logging roads							
Barren Land	Unused open land in wooded areas,	1,460	6.22					
	along streams, along roadsides							
Total Land Area		23,454	100%					
3.61	C . I 111 C D . 1	-,						

Source: Marathon County Land Use Cover Database

Current Land Use Plans and Regulations

Land Use Plan – Harrison does not have a land use plan.

Zoning – Harrison does not have a zoning code.

Land Regulations - Residents are considering whether to create ordinances for minimum lot sizes.

Shoreland Zoning - Shoreland, shoreland wetlands, and floodplain regulations are applicable in all geographic areas of the County. Wisconsin law mandates Counties to adopt and administer a zoning ordinance that regulates land use in shoreland/wetland and floodplain areas for the entire area of the County outside of villages and cities. This ordinance supersedes any Town ordinance, unless a Town ordinance is more restrictive. The shoreland/wetland and floodplain area covered under this zoning is the area that lies within 1,000 feet of a lake and within 300 feet of a navigable stream or to the land ward side of a floodplain, whichever distance is greater.

Farmland Preservation Program – The State of Wisconsin has a Farmland Preservation Tax Credit Program. The goals of the program are twofold: to preserve Wisconsin farmland by means of local land use planning and soil conservation practices and to provide property tax relief to farmland owners. Landowners keeping land in agricultural use can claim a credit on their State income tax by obtaining a zoning certificate, if the land is exclusive agriculture zoned (8 towns in Marathon County), or sign a contract with the State. The program requires that a landowner be a Wisconsin resident, own a minimum of 35 or more acres of contiguous land, and produce

gross farm receipts of \$6,000 or more in the last year, or \$18,000 in the last three years. The income requirement can be satisfied by having 35 acres or more enrolled in the Conservation Reserve Program (CRP). Landowners must also comply with County soil and water conservation standards. Contracts can range from 10 to 25 years, and remain in effect regardless of change in ownership. In Harrison, approximately 450 acres located in two areas in the east central section of the Town have been set aside under Farmland Preservation Contracts. (Figure 4-2)

FCL and Managed Forest Law (MFL)

With a large amount of forested land in the County, forest tax laws have a major effect on land uses. Because the tax laws require 25- to 50-year contracts, they are a good indicator of the amount of land that is effectively kept from development for the near future.

In the State, over 2.6 million acres are enrolled under the FCL and the MFL. Because high taxes had encouraged the cutting of timber for revenue, the laws were developed to encourage better forest management and provide tax relief to the woodland owners. Land set aside under the FCL (which was combined into the MFL in 1986) required at least 40 acres in one quarter-quarter section, set aside under a 25- or 50-year contract, and public access for hunting and fishing activities. Current contracts will continue until their expiration dates. This land is typically shown in plat books to identify locations. Land set aside under the FCL in Marathon County is often owned by forest products companies, although many individuals also own large enough parcels to participate. Over 700 acres in Harrison are set aside under the FCL.

The MFL was enacted in 1985 and requires at least 10 acres of contiguous forest land. Because of the smaller acreage requirement, many individual landowners take advantage of the MFL. Landowners may close to the public up to 80 acres of their forest lands set aside under MFL. The remaining program acres must be open to public access for hunting, fishing, hiking, sight-seeing and cross-country skiing. Landowners must choose a 25- or 50-year contract. The landowner pays an Acreage Share Amount as part of their tax bill in lieu of taxes. Current rates through 2007 are \$0.83 per acre for land open to the public and \$1.95 per acre for closed land.

Table 4-2 indicates land in Harrison currently enrolled in the FCL and/or MFL programs. Land enrolled under FCL has declined, with steady increases in acres set aside under open and closed MFL lands.

Table 4-2: Land in Forest Preservation Programs (in acres), 1998 – 2002

Year	Forest Crop Law (FCL)	Managed Forest Law (MFL) open	Managed Forest Law (MFL) closed
1998	942.6	448.8	785.6
2002	787.5	518.4	951.9
Change	-155.1	+69.6	+166.3
% Change	-16.4%	+15.5%	+21.2%

Source: Data compiled by local assessors with Municipal Board of Review

Development Trends

Land Supply – Land potentially available for future development (residential and non-residential) between 2000 and 2030 was estimated by the North Central Wisconsin

Regional Planning Commission (NCWRPC) based on the land cover categories shown in Table 4-1. Land categorized as already developed, such as residential or commercial, or areas that cannot easily be developed, such as wetlands or waterways, were considered "unavailable" for future development. In the Town of Harrison, 6,147 acres are considered unavailable. The remaining 17,307 acres are currently undeveloped and do not contain wetlands or floodplains, making them potentially available for future development.

It should be noted that the amount of land classified as "available" includes other land in public ownership, and thus may not in actuality be available for development. Table 4-3 shows public owned land including the 6,500 acres in the Harrison-Hewitt Forest Unit that would not be available for development.

Table 4-3: Public Owned Land (in acres), 1998-2002

Year	County Owned	State Owned	Federal Owned
1998	6531	205.1	0
2002	6533	205.1	0
Change	+2	0	0
% Change	_	0	0

Source: Data compiled by local assessors with Municipal Board of Review

Land Demand – An estimate of land needed for future residential development was based on projected new dwelling units between 2000 and 2030 derived from WDOA household projections and the average density of dwelling units per acre in the community. The average density was calculated using the total acres of residential land on the 2000 land use/cover

map divided by the number of households according to the 2000 Census. It was assumed that the density would remain constant between 2000 and 2030. Future acres needed for residential development were then estimated by multiplying the projected number of households in 2030 by the average density. In the Town of Harrison, is estimated that 132 acres of land will be needed to accommodate new residential development through 2030.

Between 1990 and 2002, 71 sanitary permits for residential development were approved in the Town of Harrison. This represents an average of 5.9 new homes constructed each year.

The NCWRPC estimated land needed for non-residential development based on projected changes in local employment and an estimated current average density of 3.32 employees per acre in the Eastern Group planning sub-area. In the Town of Harrison, it is estimated that only 3 acres will be needed to accommodate new non-residential development through 2030. This small acreage reflects the anticipated decline in employment, due primarily to loss of farm employment. Even though employment is estimated to decline, loss of acreage devoted to farming or other non-residential land uses should not occur. Rather, farm acres may remain constant, while the number of farm employees declines.

Land Values – Table 4-4 shows the change in per acre assessed land values in Harrison between 1998 and 2002. It also indicates percent change in acreage and land value for the Town compared to Marathon County. In Harrison, the greatest change was the decline in acres of forest land (-304 acres) and

agricultural land (-131 acres), while land assessed as residential increased by 40 acres.

In Marathon County, land classified as Swamp and Waste Land had the highest percent increase in acreage of all categories (74.8 percent) and the highest percent increase in value per acre (137 percent).

The data appears to support statements that the values of swamp and waste land and forest land have risen in response to demand by recreational users.

Table 4-4: Per Acre Assessed Land Values (in dollars), 1998 – 2002

	Resid	lential	Comn			nercial Manuf		Commercial		Agriculture		cturing Agriculture Swamp & Waste Land		For	est
Year	Acres	Land Only	Acres	Land Only	Acres	Land Only	Acres	Land Only	Acres	Land Only	Acres	Land Only			
1998	180	\$2,047	6	\$2,350	0	\$0	4,873	\$398	1,296	\$212	8,066	\$451			
2002	220	\$2,004	8	\$1,950	0	\$0	4,742	\$231	1,380	\$221	7,762	\$464			
Chg.	+40	\$-43	+2	\$-400	0	\$0	-131	\$-167	+84	\$9	-304	\$13			
			I	I	Percent (Change Co	ompariso	n							
	Acres	Land (\$)	Acres	Land (\$)	Acres	Land (\$)	Acres	Land (\$)	Acres	Land (\$)	Acres	Land (\$)			
Town	+22.2	-2.1	+33.3	-17.0	0	0	-2.7	-42.0	+6.5	+4.2	-3.8	+2.9			
County	+21.2	+5.6	+38.4	-4.0	-0.5	+34.4	-11.2	-47.6	+74.8	+137.0	+1.0	+91.8			

Source: Data compiled by local assessors with Municipal Board of Review

Major Opportunities and Constraints

• Land Development Suitability – Some areas in the southwest section of Harrison may have limited development potential because of high bedrock levels. The large amount of County-owned forest land and wetlands in Harrison also limit development potential.

Issues

- **Preservation of Rural Character** Residents of Harrison moved to the area because of the quiet, country-style living. They like their rural community and want to preserve their lifestyle in the face of any future development.
- **Preservation of Natural Resources** Harrison residents also support preservation of natural areas, including the many woodlands, wetlands and open spaces in the Town.
- **Farmland Preservation** In a 2002 survey, residents of Harrison expressed support for preservation of prime farmland. Farming is a traditional part of the local economy and remains important to Harrison.
- Parcel Size and Development Patterns Harrison residents in general support parcel sizes of ten acres or less. However, they also indicate some support for land use policies and regulations that could provide better management of growth and development in the Town.

- Control of Undesirable ("nuisance") Uses —There have been a few situations of undesirable uses such as junkyards in Harrison. Although there have not been major issues, there is some concern about undesirable uses moving in because there are no controls in place. The Town is interested in developing an ordinance to manage nuisance uses to prevent any further problems.
- **Mobile Home Ordinance** Harrison residents would like to develop an ordinance to better manage mobile homes in Harrison.

5. Transportation

Background

In general, the transportation system in Harrison appears to function quite well. Approximately two-thirds of respondents in a May 2002 survey felt the Town did not need more black-topped roads. While a few residents indicated concerns about condition of gravel roads and icy roads, most residents appeared pleased with conditions as they exist regarding transportation.

Recent Transportation Plans

Transportation planning in Marathon County is coordinated between Marathon County Department of Conservation, Planning and Zoning (DCPZ) staff and the Wausau Area Metropolitan Planning Organization (MPO), the body designated by the Federal Department of Transportation to be responsible for transportation planning in the metropolitan area. Marathon County provides staff for the Wausau Area MPO. The County also does transportation planning for areas outside the Wausau metropolitan area.

County transportation planning efforts are presented in various plans and studies. Findings and recommendations in these plans should be integrated into local community planning efforts when relevant and appropriate. Recent transportation plans prepared by Marathon County include:

- *Transportation Improvement Program (TIP)* The TIP includes all programmed transportation projects receiving Federal and/or State funds. The TIP was adopted in October 2001 and is updated every two years.
- **State Trunk Highway 29 Corridor Land Use Review** (1997) This plan was prepared by a multi-departmental team working with communities along the STH 29 corridor in the western part of Marathon County. The primary goal was to identify recommendations to allow local communities to protect STH 29 from impacts related to unplanned growth.
- Marathon County Functional / Jurisdictional Highway Classification Study (1998) This plan identifies and groups classes of roadways that provide similar levels of service. The plan recommended that the unit of government having the greatest basic interest in the roadway's function would carry out the operation, maintenance, and improvement of the classified roadways.

Road Network

Functional Classification of Roads/Jurisdiction

(WDOT Facilities Development Manual)

A functionally classified road system is one in which streets and highways are grouped into classes according to the character of service they provide, ranging from a high degree of travel mobility to land access functions. At the upper limit of the system (principal arterials, for example), are those facilities that emphasize traffic mobility (long, uninterrupted travel), whereas at the lower limits are those local roads and streets that emphasize access.

The functional classifications are generally defined as:

Principal Arterials serve corridor movements having trip length and travel density characteristics of an interstate or interregional nature. These routes generally serve all urban areas with population greater than 5,000 or connect major centers of activity, the highest traffic volumes and the longest trip desires.

Minor Arterials, in conjunction with principal arterials, serve cities, large communities, and other major traffic generators providing intra-community continuity and service for trips of moderate length, with more emphasis on land access than principal arterials.

Collectors provide both land access service and traffic circulation within residential neighborhoods, commercial areas, and industrial areas. The collector system distributes trips from arterials through the area to local streets. The collectors also collect traffic from local streets and channel it onto the arterial system.

Local Streets comprise all facilities not on one of the higher systems. They serve primarily to provide direct access to abutting land and access to higher order systems. Local streets offer the lowest level of mobility, and through-traffic movement on this system is usually discouraged.

Jurisdiction - Roads are commonly classified in one of two ways: by ownership or by purpose. Jurisdictional responsibility refers to ownership of a particular road, while functional classification, as described above, identifies the road by the Level of Service (LOS) it provides.

Jurisdiction refers to governmental ownership, not necessarily responsibility. For example, some State-owned roads are maintained by local jurisdictions. Additionally, the designation of a public road as a "Federal-aid highway" does not alter its ownership or jurisdiction as a State or local road, only that its service value and importance have made that road eligible for Federal-aid construction and rehabilitation funds.¹

Ownership is divided among the Federal, State, and local governments. States own over 20 percent of the national road network. The Federal Government has responsibility for about 5 percent, primarily in national parks, forests, and Indian reservations. Over 75 percent of the road system is locally controlled.

In some cases, local municipalities are responsible for conducting routine maintenance and minor repairs on State and Federal highways within their jurisdictional boundaries. In return, the State generally provides financing to those jurisdictions. However, major repairs and reconstruction are generally still the responsibility of the State Department of Transportation. Roadway jurisdictions (i.e. U.S., State, and County highways) are indicated in Figure 5-1.

.

¹ U.S. Department of Transportation, Federal Highway Administration Conditions and Performance Report.

Major Road Facilities

Following is a brief description of the major road facilities located in Harrison. All major roads are summarized by functional classification, jurisdiction, and Annual Average Daily Traffic (AADT), when available.

- **STH 52** follows the Town of Harrison's southern border with Plover. STH 52 is designated as a minor arterial. Between Swanson Road and Eau Claire River Road (in Plover), STH 52 had an AADT of 1,700 in 1998 and 1,600 in 2001. The 1998 AADT volume was 1,800 between Nolan Road and Highland Drive (in Plover). A 2001 traffic count was not available at this location.
- **CTH HH** is a north-south major collector, which serves as the eastern Town boundary. Between Bear Lake Road and STH 52, CTH HH had an AADT volume of 620 in 1998 and 690 in 2001. The 2001 AADT volume was 660 between Springbrook Road and CTH G.
- **CTH G** is an east-west minor collector. Along the shared section of roadway with CTH Y, CTH G/CTH Y had an AADT volume of 600 in 1998 and 580 in 2001.
- **CTH Y** is a minor collector route through Harrison. Between Shepard Road and Damitz Road, CTH Y had an AADT volume of 140 in 1998 and 200 in 2001.

Road Maintenance

Each year, the Town of Harrison averages about one new mile of blacktop. Annual efforts consist of patching holes in blacktop, and maintaining existing roads. Because traffic amounts are limited, maintenance has not been a major issue. There are some concerns about dump trucks and their usage of Bear Lake Road to access quarries.

The Town contracts for snowplowing services.

The primary safety issue in Harrison is speeding, particularly as more drivers are commuting longer distances to both Wausau and to Antigo and travel through Harrison.

Pavement Surface Evaluation Rating (PASER) – The Wisconsin Department of Transportation (WDOT) requires all incorporated communities to prepare a Pavement Management Plan (PMP) using a pavement rating system for their local roads. These plans were to be submitted for review by December 2001. The data from these plans is intended to provide the foundation for the Wisconsin Information System for Local Roads (WISLR), which is a computer resource that will enable communities and the State to begin to assess Wisconsin's local roadway system.

The PASER system, which was designed by the Transportation Information Center of the University of Wisconsin-Madison, is the rating system used most by Wisconsin communities. PASER rates road surfaces on a scale of 1 to 10. This scale is broken down as follows:

- "1" and "2" = very poor condition
- "3" = poor condition
- "4" and "5" = fair condition
- "6" and "7" = good condition
- "8" = very good condition
- "9" and "10" = excellent condition

In addition to its use in the new WISLR, the rating system gives communities a detailed assessment of the appropriate maintenance method for each road segment under their jurisdiction. This assessment is then incorporated into the community's PMP.

Figures 5-2 and 5-3 and Table 5-1 illustrate the WISLR road assessment done in 2004 by surface type and condition rating. As shown, the majority of roads in the Town are paved with asphalt. Roads exhibiting a surface condition rating at or below "Fair" should be examined to determine what type of reconstruction or strengthening is necessary. Roads that display a surface rating of "Good" or better will only require minimal preventative maintenance to maintain safe travel conditions. Those roads without data should be examined to ensure safe travel conditions exist along these routes. A majority of the roads in the Town are rated in "Good" or better condition and will require only preventative maintenance. However, roughly 7.5 miles of roadways will require some sort of reconstruction

Table 5-1: Summary of Pavement Conditions

	Surface Type Code (miles)									
Unimproved Road	Graded Earth Road	Gravel Road	Wearing Surface	Cold Mix Asphalt on Concrete	Cold Mix Resurfacing with < 7" Base	Cold Mix Resurfacing with > 7" Base				
		7.22								
Cold Mix Asphalt	Cold Mix Asphalt Base >	Hot Mix Asphalt on	Hot Mix	Hot Mix Asphalt	Concrete	Brick or Block				
Base < 7"	7"	Concrete	Resurfacing	Pavement Pavement	Pavement	Pavement				
6.50	15.06		4.49							

	Surface Condition Rating - WISLR Data								
No Data Failed Poor Fai					Good	Very Good	Excellent		
				7.56	13.38	12.33			

Source: WDOT (WISLR), 8/10/04

Land Use and Transportation

Access Management – Wisconsin was one of the first states to recognize the relationship between highway operations and the use of abutting lands. Under Chapter 233, the WDOT was given the authority to establish rules to review subdivision plats abutting or adjoining State trunk highways or connecting highways. Regulations enacted by WDOT establish the principles of subdivision review. They require new subdivisions to: (1) have internal street systems; (2) limit direct vehicular access to the highways from individual lots; (3) establish building setbacks; and (4) establish access patterns for remaining unplatted land.

Marathon County issues driveway permits and implements access restrictions on all properties fronting a lettered County road. The *County Trunk Highway Access-Driveway Policy* addresses the requirements regarding culverts, access width, slope, visibility and spacing. The policy is available through the Marathon County Highway Department.

Trip Patterns – Increasing through traffic is utilizing CTH Y south to CTH G and then west through Harrison, eventually to connect with CTH Q. This has become a busier commuter and general travel connection between Antigo and Wausau.

Other Transportation Modes

Pedestrians—There are no public sidewalks in Harrison.

Bicycle – The *Bicycle & Pedestrian Plan for the Non-Urbanized Area of Marathon County, Wisconsin,* 1996 identified **recommended** bicycle routes in Marathon County. These recommended routes were based on traffic counts and condition of pavement. Formal action has not occurred to adopt these as **designated** bicycle routes. Suggested routes in Harrison include CTH Y and CTH G. (Figure 5-4).

Transit – Elderly, needy, and disabled transit service is provided throughout the County through North Central Health Care (NCHC). The services include semi-fixed routes that are scheduled, and demand services available with a 48-hour notice. Information and services are available by calling 848-4555.

Rail – There are no rail lines serving Harrison.

Airports – The Central Wisconsin Airport (CWA) is a joint venture of Marathon and Portage Counties. It is the only airport within Marathon County or neighboring counties that provides scheduled air passenger services. The CWA is located east of Mosinee and accessible via I-39. The terminal has been modernized and highway access reconstructed to be more convenient. Since 1982 more than \$24,000,000 has been spent to keep the airport ready to serve the needs of the region. Service is provided through Mesaba/Northwest, United/United Feeder Service and Skyway/Midwest Express, offering 24 flights per day that connect through Minneapolis, Chicago, Detroit and Milwaukee. There are also nine air freight and express flights daily.

Issues

• **Funding** – Future road maintenance and improvement costs and funding options may be limited, depending on State aid availability.

6. Utilities

This section describes the existing conditions and issues relative to utilities available to the Town of Harrison, including sewage disposal, water supply, power supply, and telecommunication facilities and services. It also describes existing conditions with regard to surface water management.

Private Utilities

Most unincorporated areas of Marathon County use private onsite waste disposal systems for sewage disposal and obtain potable water from private wells. The Town of Harrison does not provide public sewer or water service. All development uses private wells and waste disposal systems.

On-Site Waste Disposal Systems

Chapter 15 of the *General Code of Ordinances for Marathon County* requires private waste disposal systems on all premises intended for human habitation or occupancy that are not served by public sewer. The County Code incorporates by reference rules, regulations, and laws in the Wisconsin Statutes and Wisconsin Administrative Code governing private waste disposal systems, including:

• **Comm 83** – This refers to Chapter 83 in the Wisconsin Administrative Code under the Department of Commerce. It sets standards for regulation of private sewage systems. This code was updated in 2000 and now allows the use of

new concepts and technologies through a system of individual component approval. Standards for effluent are based on a drinking water standard, although nitrates are generally exempted.

Types of Systems – Under the revised Comm 83 standards, property owners have a wider array of system options than previously available. Septic tanks can be steel, concrete, fiberglass or plastic, but they all must now be equipped with a filter to prevent the movement of solids out into the soil absorption component. In addition, rock in drainfields may now be substituted with specifically engineered foam peanuts bound in mesh or plastic chambers.

On-site waste disposal systems generally fall into four categories:

- **Conventional Systems** These systems include an absorption field that is buried under the natural ground level. These systems cannot be built in areas where soils do not allow percolation due to high clay content or bedrock where groundwater is too near the surface, or where soils percolate too rapidly and thus pose problems for groundwater contamination.
- Mound Systems These systems include an absorption field that is constructed above ground, creating a "mound." This type of system is generally used where clay soils, groundwater, rapid permeability or bedrock prevent construction of conventional systems.

- Mechanical Treatment Components These
 components generally replace or augment the septic tank
 component and may include aerobic treatment tanks and/or
 self-contained artificial media or sand filters to clean the
 effluent prior to its discharge into the soil absorption
 component.
- **Holding Tanks** Holding tanks are considered the system of last resort and are only allowed if other types of septic systems cannot be used. Temporary holding tanks (e.g., less than 2 years) are sometimes allowed in areas where public sewer is approved for installation in the near future.

Permit Requirements – The Marathon County Department of Conservation, Planning and Zoning (DCPZ) reviews and issues permits for private waste disposal systems. Soil and site evaluations are required to determine if the proposed system is suitable for the specific property and location before a permit will be issued. If deemed necessary, floodplain and/or wetland delineation may also be required prior to permit issuance. In addition, a maintenance agreement must be submitted prior to permit issuance. All septic tanks installed on or after July 1, 1980, are required to be pumped at least once every three years.

All development in Harrison uses on-site waste disposal systems. Although most of the north and western portions of the Town are identified as unsuitable for septic tank absorption fields, this area is largely forested and wetlands and will likely not have any development. Bedrock is high in the southwest corner of Harrison and could impact waste disposal methods. (Figure 6-1 and 6-2)

Water Wells – All development in Harrison receives water from private wells. Groundwater availability is sometimes unpredictable.

Surface Water Management

In 2001, Marathon County adopted a Land and Water Resource Management Plan (LWRMP) in accordance with Wisconsin Statutes (Wisconsin Act 27, Chapter 92.10). The primary intent of this plan is to identify a vision for natural resource management in Marathon County and outline strategies to protect the quality and quantity of soil and water resources.

The County is particularly concerned about nonpoint sources of pollution, including failing septic systems, urban runoff, and issues often identified with rural areas such as soil erosion, animal waste and pesticides. Nonpoint pollution is best addressed by watershed. Marathon County encompasses portions of 22 watersheds as shown on Figure 6-3. The Wisconsin Department of Natural Resources (WDNR) has ranked these watersheds according to water pollution impacts and designated "priority" watersheds to receive special planning and funding through the voluntary, State-funded Priority Watershed Program. Preparation of a resource management plan for Springbrook Creek watershed in the Town of Harrison is currently underway.

Designated a Priority Watershed by the WDNR in 1994, the Springbrook Creek Watershed covers 67 square miles. Only about ten percent of the watershed is in Marathon County. Within the Marathon County portion of the watershed were

three inventoried barnyards and approximately 1,000 acres of cropland. Springbrook Creek is classified as a Class I trout stream for most of its length in the County. It is under threat of pollution from eroding cropland and livestock operations.

In Harrison, residents reported that the rivers and streams have run-off from fields for several days after strong rains. Otherwise, no water erosion control problems were noted.

Electrical and Gas Utilities and Services

The Town of Harrison receives electric power from Wisconsin Public Service Corporation (WPS). A few residents along CTH G and School Road receive natural gas service from Antigo.

There is an existing major power line through Harrison that runs north, paralleling CTH Y through much of the Town. (Figure 6-4)

Solid Waste Management

The Marathon County Solid Waste Management Department is in charge of waste management for non-hazardous solid waste. It consists of the 575-acre landfill, recycling programs, composting, and waste-to-energy.

Municipal, commercial and industrial waste is accepted at the Marathon County Landfill in Ringle. User fees collected at the landfill defray the cost of landfill operations. The County opened a Household Hazardous Waste Collection Facility in

May 1997, where County residents can drop off hazardous waste free of charge.

Residents in Harrison handle their own waste management.

Telecommunication Facilities and Services

- Television/Cable providers—No cable service.
- Telephone—Verizon
- Cell towers—There are no cell towers in Harrison.

Issues

• **Utilities Issues** — Other than the unpredictability of finding water, no other utilities issues were reported in Harrison.

7. Housing

Housing is a significant aspect of any comprehensive planning effort. This section is an inventory and analysis of housing conditions in the Town of Harrison. Housing in the Town is predominantly single family, with 85 percent owner-occupied. Over 20 percent of housing units were constructed over the last decade, with median housing values of \$66,700.

Data contained in this section reflect two methodologies of data collection employed by the U.S. Census. The source of data collected for the first table is from 2000 Census, Summary Tape File (STF)-1 Data, which was collected through a household-by-household census and represents responses from every household within the country. To get more detailed information, the U.S. Census also randomly distributes a long-form questionnaire to 1 in 6 households throughout the nation. Tables utilizing this sample data are identified in the footnote below each table and are labeled "STF-3 Data." It should be noted that STF-1 and STF-3 data may differ for similar statistics, due to survey limitations, non-response, or other attributes unique to each form of data collection.

Housing Inventory

Housing Type and Tenure

As shown in Table 7-1, the 2000 Census shows the Town of Harrison has 143 occupied housing units. 122 (or 85%) of these units are owner-occupied. The Town has an average household size of 2.92 persons. 14% of all households are

classified as being "1 person households." Approximately 20% of Town households have a householder 65 years or older.

Table 7-1: Number of Housing Units by Type and Tenure

Area	Harrison	Marathon County	Wisconsin
Total Occupied Housing Units	143	47,702	2,084,544
Owner Occupied Units	122	36,091	1,426,361
Renter Occupied Units	21	11,611	658,183
Average Household Size	2.92	2.6	2.50
% Owner Occupied	85.3	75.7	68.4
% 1 Person Households	14	23.6	26.8
% With Householder 65 years or older	19.6	21.7	21.5

Source: U.S. Census, 2000 STF-1 Data

Changes in Housing Stock

Table 7-2 notes changes in the housing stock between 1990 and 2000 according to U.S. Census Data. Total housing units have decreased by 22 while the number of occupied housing units rose by 13. Vacancy decreased from 24% to 3%. This is accounted for in the reduction from 28 to 0 seasonal/recreational use homes. The number of owner-occupied housing units increased by 15 or 14%. The census reported slight changes in the number of single-family and duplex units.

Table 7-2: Changes in Housing Stock

Table 7-2. Changes in flou			#	%
	1000	2000		
	1990	2000	Change	Change
Total Housing Units	170	148	-22	-13%
Occupied Housing Units	130	143	13	10%
(Households)				
Vacancy %	24%	3%		
Owner Occupied Housing Units	109	124	15	14%
Renter Occupied Housing Units	21	19	-2	-10%
Owner Occupied Housing Units as	84%	87%		
percent of Total				
Number of Homes for Seasonal/Rec	28	0	-28	-100%
Use				
Number of Single Family Homes	124	119	-5	-4%
*Detached	124	119	-5	-4%
**Attached	0	0	0	
Number of Duplexes	0	3	3	
Multi Family Units 3-9 units	0	0	0	
Multi Family Units 10+	0	0	0	

Source: U.S. Census, 1990, 2000 STF-3 Data

Housing Age

The age of a community's housing stock typically reflects several important factors including size, offered amenities, and overall maintenance costs. Age of the dwelling often reflects different regional and national trends in housing development. Housing predating the 1940s, for example, was typically smaller and built on smaller lots. In subsequent decades, both average lot and housing unit sizes have increased. For example, average houses constructed in the 1980s and 1990s are typically much larger than housing built in previous

decades. This can be seen in both the rural and more urban environments of Marathon County. Additional bedrooms, bathrooms, and attached garage space are among the amenities found in newer housing units.

Table 7-3: Age of Community Housing Stock

	Year Built								
Total Units	1999 to March 2000	to	to	to	1970 to 1979	to	to	to	1939 or earlier
148	2	12	18	17	30	3	13	16	37
100%	1%	8%	12%	11%	20%	2%	9%	11%	25%

Source: 2000 U.S. Census, STF-3 Data

Table 7-3 shows housing age for the community. In the Town of Harrison, data show that housing growth has been fairly steady over the past several decades. Recent housing growth from the 1990s makes up approximately 21% of the total housing stock. That is higher than overall percentages for the County. The Census reports that homes built in the 1990s make up 13% of the County's overall housing stock.

Physical Housing Stock

Table 7-4 looks at several select measures of physical condition and compares them to figures for Marathon County and Wisconsin. The median housing unit size in the Town of Harrison is similar when compared to the overall figures for the County and State, when measured by number of rooms. Over 80% of the community's housing stock is classified as single family housing. This is significantly higher than the overall figures for the County or State. At the time of the 2000 census, there were no housing developments with more than 10 units.

^{*} This is a 1-unit structure detached from any other house

^{**}In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.

Census data indicate that the Town has a higher percentage of housing units lacking complete plumbing and kitchen facilities, when compared to either the County or State.

Table 7-4: Physical Housing Stock

_		Characteristic (%)					
	Median	1 unit, detached or	In buildings with 10 or		Lacking complete kitchen		
Community	Rooms	attached	more units	facilities	facilities		
Harrison	5.4	80.41%	0.00%	3.38%	3.38%		
Marathon County	5.8	76.10%	4.50%	0.90%	0.90%		
Wisconsin	5.4	69.30%	9.40%	1.40%	1.50%		

Source: 2000 U.S. Census, STF-3 Data

Housing Values

Median Value

Table 7-5 shows housing value statistics for the community, County and State. Specifically, the column to the right shows the median (or middle value) of select owner-occupied housing units for each specified area. This value includes only single-family houses that are located on less than 10 acres. Additionally, this statistic only considers houses without a business or medical office on the property. Census data indicates that the Town of Harrison has a median housing unit value well below that of the County.

Table 7-5: Median Housing Value

142.67 2. 1104.4	
	Median Value (dollars)
Harrison	\$66,700
Marathon County	\$95,800
Wisconsin	\$112,200

Source: 2000 U.S. Census, STF-3 Data

Range of Values

Table 7-6 shows the range of housing values that exist in the community. Compared to overall percentages for Marathon County, the Town of Harrison has a higher percentage of housing units valued below \$100,000.

Table 7-6: Range of Housing Values

Number of Houses per Housing Value Category	Harrison	Marathon County
< \$49,999	9	1,459
%	17%	5%
\$50,000 to \$99,999	34	13,405
%	65%	49%
\$100,000 to \$149,999	9	8,220
%	17%	30%
\$150,000 to \$199,999	0	2,368
%	0%	9%
\$200,000 or more	0	1,714
%	0%	6%

Source: 2000 U.S. Census, STF-3 Data

Housing Affordability

Several factors impact the varied levels of housing affordability in Marathon County. These factors include rent and mortgage payments, maintenance expenses, lot size, and required or desired amenities for the dwelling. Household size and income are also key factors contributing to what housing options are available and accessible to residents.

Statistically speaking, those spending in excess of 35% of their total household income on housing costs may be facing affordability difficulties. The U.S. Department of Housing and

Urban Development (HUD) recommends that rental-housing costs not exceed 30% of the monthly income. HUD also indicates that mortgage lenders are more willing to make loans if the scheduled mortgage payment is less than 29% of the monthly household income. The percentage of households in the Town of Harrison that pay more than 35% of their income on housing costs is similar to that of the County and State among owner-occupied households.

Additionally, Table 7-7 shows that select Town median owner-occupied costs, both with and without a mortgage, are less than median figures for Marathon County. The same holds true for select renter costs. Technical documentation from the Census states that contract rent is the monthly rent agreed to or contracted for, regardless of any furnishings, utilities, fees, meals, or services that may be included. For vacant units, it is the monthly rent asked for the rental unit at the time of enumeration. Gross rent is the contract rent plus the estimated average monthly cost of utilities (electricity, gas, water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid by or for the renter. (U.S. Census STF 3 Technical Documentation Guide)

Table 7-7: Housing Affordability

	Owner Occupied			Renter Occupied		
	Median selected monthly owner costs ¹			Median selected monthly renter costs ¹		
	With Mortgage	No Mortgage	%²	Median Contract Rent	Median Gross Rent	%²
Harrison	\$788	\$219	10%	\$319	\$408	8%
County	\$916	\$295	10%	\$423	\$484	20%
Wisconsin	\$1,024	\$333	9%	\$473	\$540	25%

¹In dollars

Special Housing

In Marathon County, housing for seniors and populations with special needs is primarily provided in the urbanized areas in and around Wausau. The Marathon County Aging and Disability Resource Center, the Wisconsin Department of Health and Family Services, and the Marathon County United Way all maintain a list of these housing options throughout the County. As the number of elderly persons increases in the coming years, there will most likely be a greater need for these types of housing options. This trend will be seen throughout Marathon County, the State of Wisconsin, and the U.S.

Senior Housing

The Eastern area of Marathon County is served by the senior housing Home Sweet Home in the Village of Hatley, as well as four additional facilities in the Village of Birnamwood. This area is also served by facilities in the City of Antigo and the

²Percent paying over 35% of household income on housing Source: 2000 U.S. Census. STF-3 Data

Wausau region. This region, along with the rest of Marathon County, will most likely need additional senior housing in the coming years, as the senior population continues to increase.

Assistance Programs

There are a variety of State and Federal housing programs geared at addressing housing issues. Grants and low interest loans are available for counties, communities, or individual homeowners. The following housing resources are available to participants as specified by program.

- Community Development Block Grant (CDBG)-Small Cities Housing
- Home Investment Partnerships Program (HOME)
 - --Rental Rehabilitation Program
 - --Home Owner and Accessibility Rehabilitation Program
 - --Home Ownership Program
 - --Wisconsin Fresh Start Initiative provides at-risk young people with education, skills, and career direction leading to economic self-sufficiency.
- Homeless Programs (Wisconsin Department of Administration [WDOA])
 - --HUD Emergency Shelter Grants
 - --State Shelter Subsidy Grants
 - -- Transitional Housing
- Local Housing Organization Grant (LHOG)
 State grants are available to enable community-based organizations, tribes and housing authorities to increase

their capacity to provide affordable housing opportunities and services.

- HOME Loans and Home Improvement Loans (Wisconsin Housing and Economic Development Authority [WHEDA])
- Housing-Related Consumer Protection Services (Wisconsin Department of Agriculture [WDA])
 The Trade and Consumer Protection Division is responsible for the investigation of unfair and deceptive business practices and handles individual consumer complaints involving landlord/tenant complaints, and home improvement transactions.

Issues

- **Housing Types** A recent survey showed that residents believe single-family housing is the best option in Harrison. There are no multi-family housing units in the Town and no need is anticipated.
- Mobile Home Ordinance Harrison residents would like to develop an ordinance to better manage mobile homes in Harrison. The Town would like to see consistency for health and safety purposes, such as ensuring that mobile homes are built on foundations; and that they have addresses and are accessible in case of fire or police service needs

8. Cultural Resources

Cultural resources is a broad term that can encompass many aspects of our heritage. Cultural resources may include archaeological sites and cemeteries, historic buildings and landscapes, historic transportation routes, or traditional cultural properties important to American Indians or other cultural groups. Cultural resources are those elements around us that signify our heritage and help to evoke the sense of place that makes an area distinctive. Cultural resources include buildings, sites and landscapes that help communities retain their sense of identity in an increasingly homogenized society.

Brief History of the Town of Harrison

John Crump Hogarty came to the Eau Claire River in far northeastern Marathon County in 1842 to trade with the Indians. Hogarty farmed and logged the land until serving in the Civil War. After the war he returned and married an Ojibwe woman and raised a family in the area known as Hogarty, located on the Harrison/Plover town line.

By the 1870s, the Harrison area was dominated by logging. The first sawmill in the Hogarty area was built by Marshall Otis in 1890. The Town of Harrison was established in 1888.

As the pine forests were becoming depleted in Marathon County by the turn of the century, the lumber business turned toward hardwoods and hemlock for harvesting. This precipitated some activity in Harrison as well as the Town of Hewitt to the west. In 1909, the Barker & Stewart Lumber

Company of Wausau purchased over 9,700 acres of hardwood and hemlock in the two towns. Although the boom in hemlock was somewhat short-lived, it must have dominated activity in the towns in that period.

Marshall Otis, builder of the sawmill, and others were instrumental in establishing a Presbyterian Church by 1904 at Hogarty, and it developed into a small crossroads settlement. Although the Town remained heavily forested, some farming occurred as lands were cleared. The original farmers included the Native Americans who had long resided in the area, as well as German and Scandinavian immigrants.

Properties Listed on the National Register of Historic Places (NRHP)

There are no properties in Harrison listed on the NRHP. The Town does not have a local historic preservation commission.

The Wisconsin Historical Society maintains the Wisconsin Architecture & History Inventory (AHI) that identifies any properties that may have been surveyed in the past; the Inventory does not convey special status and may not be current. The inventory may be reviewed at www.wisconsinhistory.org/ahi/index.html. There are no historic properties in Harrison that have been previously surveyed and included in the AHI.

The State Historic Preservation Office (SHPO) has identified no archaeological sites; there is one historic cemetery in Harrison. Cemeteries, Burial Mounds, Other Burials — Wisconsin Statute 157.70 provides for the protection of all human burial sites, including all marked and unmarked burials and cemeteries. There are currently 133 cemeteries and burial areas identified in Marathon County, and it is likely that other cemeteries and burials may be present. Suspected burial mounds or unmarked burials must be reported to the State Burial Sites Preservation Office. If human remains are uncovered during excavation, all work must cease pending review of the Burial Sites Preservation Office. All cemeteries and burials in Marathon County should be catalogued under Wis. Stat. 157.70 to provide maximum protection of these sites.

Table 8-1: Known Cemeteries

Cemetery Name	Location	Section
Hogarty Riverside	STH 52, Hogarty	33

Source: www.rootsweb.com/~wimarath/CemLocations.htm

Issues

• Lack of Current Information — Although a brief countywide historic properties survey was carried out in 1975-77, there has been no update. Many properties identified at that time may be gone, while other properties not previously surveyed may now be evaluated in a new context. It is necessary for the community to have current information about cultural resources in order to maximize planning and make the best use of historic properties. This is particularly important in Harrison, where few properties have been previously identified.

- **No Recognition Process** Outside the City of Wausau, there is no process to recognize historic buildings or begin to plan for their protection. Once historic properties are identified, towns and villages do not have an established mechanism for recognizing them or integrating them into ongoing planning processes.
- Rural Character and Historic Resources In Marathon County, residents have expressed a strong desire to preserve the rural character of the County and raised concerns about increasing ex-urban development and the decline of working farms. An important part of rural character is the rural landscape and the buildings that convey that sense of place. While it is important to address the location and type of new development, there is also a need to preserve some visible reminders of rural character, including working farms. Without preserving some of the existing resources, including farmsteads and farmlands, the very characteristics that attracted residents will increasingly be lost.
- Protection of Archaeological Sites and Cemeteries –
 Cultural resources planning includes identification and
 protection of archaeological sites and historic cemeteries.
 The Wisconsin Historical Society maintains a list of
 reported sites and cemeteries, representing a fraction of
 sites that are actually present. This information is often
 overlooked and should be incorporated into the planning
 process for local communities.

9. Community Facilities

This element describes the community facilities and services provided to the Town of Harrison. It describes schools, libraries, public protection services, hospitals and child care services available to residents.

Schools

Primary and Secondary Schools

The Town of Harrison is served by the Unified School District of Antigo. The district has nine elementary schools, a middle school, and high school. Residents of Harrison attend Pleasant View Elementary located on CTH HH in Langlade County, and Antigo Middle and Antigo High School in Antigo. Aniwa Elementary in the Harrison area will close and students will attend other schools. The district had 2,898 students in 2002-2003 school year. The student population is declining, and the district has closed a number of elementary schools in recent years. Therefore, no additional facilities are required for the foreseeable future. There are no private schools located in Harrison. (Figure 9-1)

Table 9-1: Unified School District of Antigo Enrollment

Year	Enrollment PreK-12
1996-1997	3,172
1997-1998	3,121
1998-1999	3,117
1999-2000	3,073
2000-2001	3,029
2001-2002	3,022

Source: State of Wisconsin, Department of Public Instruction

Post-Secondary Educational Facilities

University of Wisconsin – Marathon County (UW-MC) - UW-MC, located in Wausau, offers lower level (freshman/sophomore) college classes, leading to a baccalaureate degree. Associate Degrees are offered in Arts & Sciences, and Bachelor's Degrees (through collaborative degree programs with UW Oshkosh and UW Stevens Point) offered in Business Administration, General Studies, and Nursing. Enrollment in 2002-2003 was approximately 1,300

Northcentral Technical College (NTC) - NTC, located in Wausau, offers 40 one- and two-year programs and certificates in business, technical, health and industrial fields. Approximately 2,300 full- and part-time students attend classes, although more than 16,000 people take at least one class annually.

Libraries

students.

The Town of Harrison is served by the Antigo Public Library, 617 Clermont Street, in Antigo approximately five miles northeast of Harrison. The Town is also served by the Marathon County Public Library system. Harrison has lost its bookmobile service, which is slated for replacement by the Branch Library proposed for Hatley. The Wausau Headquarters Library, located on First Street in downtown Wausau, completed an expansion to 82,000 square feet in 1995. This new main Wausau Library is open seven days a week and offers over 555,800 volumes, including books, magazines and other materials, as well as internet access.

Public Protection

Police

Law enforcement is provided by the County sheriff. (Figure 9-2)

Fire and Emergency Response

Fire and ambulance service is provided from the Village of Birnamwood. Harrison pays a retainer to Birnamwood Fire and Ambulance as well as a per call fee for service. (Figure 9-3)

E-911 Dispatch Service - The Marathon County Sheriff's Department Communications Division provides E-911 Dispatch for all Police, Fire, and Emergency Medical Services (EMS) agencies in Marathon County. The Communications Division services 85 user agencies and also provides alert paging support for the Emergency Management Office, District Attorney, and Medical Examiners Office.

The users are served by a microwave linked voted repeater radio system, consisting of a control center at the Sheriff's Department, and nine remote radio tower sites spread throughout the County. The system is also utilized by the Marathon County Highway Department and the Wausau Fire Department to support their radio communications. The 37 base radio transmitters and 479 mobile radios that make up the integrated system are maintained and serviced by the Sheriff Department's radio technician.

Hospitals

The major hospital in Marathon County is Wausau Hospital at 425 Pine Ridge Boulevard in Wausau. Wausau Hospital was created in the 1970s from a merger of St. Mary's Hospital and Memorial Hospital. A new building was completed in 1979 and expansions followed in 1982 and 1992. The 321-bed facility is a multi-specialty regional health center serving a 12-county region in north central Wisconsin. Annual admissions in 2001 totaled 13,631.

Wausau Hospital and its parent corporation, Community Health Care, and other nearby hospitals are part of the Wisconsin Valley Health Network. Hospitals nearby that are part of the network and may serve Marathon County residents include:

Langlade Memorial Hospital

Antigo, WI

St. Joseph's Hospital in Marshfield and St. Michael's Hospital in Stevens Point are both operated by Ministry Health Care. St. Joseph's Hospital is located at 611 Saint Joseph Avenue in Marshfield and offers a full array of services, specialty services and a complete rehabilitation unit. St. Michael's is a fully accredited acute care facility with 181 beds and nearly 200 doctors on staff. It is located at 900 Illinois Avenue in Stevens Point.

Working in conjunction with St. Joseph's Hospital is the Marshfield Clinic. Marshfield Clinic began in 1916 when six physicians decided to join their efforts. The Marshfield Clinic has grown to over 700 physicians with 41 Regional Centers in

Wisconsin and Upper Michigan. Marshfield Clinic first established satellite locations in 1976. Offices in Marathon County are located in Athens, Colby/Abbotsford, Marathon, Mosinee, Schofield (Everest Center), Stratford, and Wausau (4 locations)

Ministry Health Care announced plans in July 2002 to construct a 104-bed, \$100 million hospital and medical office complex in Weston near the intersection of STH 29 and CTH X. The hospital is planned to open in 2005. (Figure 9-4)

North Central Health Care (NCHC) – In addition to the hospitals and clinics described above, Marathon County is served by NCHC, a public agency, that also serves Langlade and Lincoln counties. The NCHC main campus is located at 2400 Marshall Street in Wausau. Additional offices are located in Antigo (Langlade Health Care Center) and Merrill and Tomahawk (Lincoln Health Care Center). According to their web site, NCHC offers outpatient, day hospital, community support and inpatient services for mental/emotional problems; vocational, life skill training, early intervention, housing and care management services for the developmentally disabled; and assessment, individual and outpatient group counseling, intensive programming, day hospital, referral for residential and inpatient treatment, and education for alcohol and other drug problems. Services for detoxification and for persons suffering from problems with gambling addiction are also offered.

NCHC operates a nursing home (Mount View Care Center) that offers skilled nursing services at the main campus in Wausau. This facility has a licensed capacity of 320 and serves

persons requiring either short term or long term skilled nursing care because of complex physical needs, psychiatric and neurological diseases, dementia or behavior problems.

Child Care

The Wisconsin Child Care Resource and Referral (CCR&R) Network is a membership organization made up of 17 community-based CCR&R agencies serving the State of Wisconsin.

CCR&R agencies assist parents in selecting quality childcare, help to increase the supply of childcare in areas that may be lacking sufficient care, offer information and technical support to potential child care providers, and give technical assistance and support to existing childcare programs.

Each agency manages a database of existing childcare providers and programs, collects data about childcare rates, provider and teacher salaries, the number of parents and children using their services, the type of care requested and the children's ages.

The community-based CCR&R agencies that provide services to Marathon and adjacent counties are:

Table 9-2: Child Care Referrals

Counties	Agency	Contact Information
Langlade,	Child Care Connection	http://www.childcareconnectionrr.org/
Lincoln,		(800) 848-5229
Marathon,		
Taylor		
Shawano	Community Child Care	800-738-8899
	Connection	

Issues

• **Fire and Ambulance Service** — Harrison receives both fire and ambulance service from the Birnamwood Fire and Ambulance Association. Harrison pays a retainer fee to Birnamwood and a per call fee. Although service and response time have not been an issue, Harrison residents may want to investigate other options in the future to ensure that the Town receives the most efficient, safe and cost-effective service options.

10. Parks

Existing Parks, Trails and Open Space

Local Parks and Recreation Facilities

The Town of Harrison does not own or operate any public parks.

County or State Parks, Forest and Trails

Several County and State parks are located near the Town of Harrison (Figure 10-1). They include:

Harrison-Hewitt Forest Unit—Marathon County owns and maintains the Harrison-Hewitt Forest Unit, which is 8,424 acres in size located on both sides of the Town line between Hewitt and Harrison. Roughly two-thirds of the forest is in Harrison. The forest is made up of mixed upland woods, marshes, and water impoundments. Recreational opportunities include hunting, snowmobiling, and hiking. One of the forest's special features is the Bitzke Bird Walk, completed in 1992. The Bitzke Bird Walk passes a number of wetlands and impoundments, with some sections including boardwalks through wetlands. The trail includes interpretive displays and many opportunities for viewing waterfowl.

The Dells of the Eau Claire Park— The nearest County park is the Dells of the Eau Claire Park located off CTH Y in the Town of Plover. Ancient volcanic rock palisades and potholes carved in the rock by the falling water create a unique place on

the Eau Claire River. The park is 190 acres in size bisected by the river. A dam upstream from the falls creates an impoundment that has a swimming beach and changing rooms. A large Civilian Conservation Corps (CCC)-era shelter is located north of the falls area. Park facilities include picnic tables, grills, drinking fountains, and children's play equipment. There are extensive trails located along both sides of the river, including a portion of the Ice Age Trail.

Rib Mountain State Park — Rib Mountain State Park is located within the Town of Rib Mountain. The park's main feature is Rib Mountain, which at 1,924 feet above sea level is one of the highest elevations in the State of Wisconsin. The park surrounds the mountain and has the following facilities: a picnic area with 65 tables, a camping area with 31 developed sites, 3 hiking trails, a nature trail, and a downhill skiing area with 12 runs

Park System Needs

No park system needs or issues have been identified by Harrison

11. Economic Development

The condition of the local economy directly influences local growth and development, and therefore must be considered when planning for a community's future. Employment patterns and economic trends generally occur on a regional scale. Oftentimes residents of one community work in another. Similarly changes in a major industry can impact jobs and growth far beyond the community where the business is physically located.

It is therefore important to understand a local community's economy in light of its regional context. The following section provides a brief overview of the economy in Marathon County, in terms of key economic sectors and the regional labor force. A more specific description includes Harrison employment trends, major local employers or industries, and where most residents work. Potential economic development opportunities and/or issues regarding the local economy are also identified.

County Economic Environment

Originally, the Marathon County economy was based on forest resources and diversified agriculture. Increased population and infrastructure – railroads, roads and dams for power enabled the area to evolve beyond simple agricultural and logging operations. Resources that once left the area unprocessed were transformed into finished products in the County, providing employment opportunities and adding value in forest products and agricultural processing. A number of related manufacturing operations grew up in the area, some based on

forest products and agricultural products, others supplying the existing industries with fabricated metal products. As these industries progressed, so did industries such as transportation, communications, public utilities, government, trade, finance, insurance and real estate. The County now enjoys a well-diversified economy.

Agricultural Economy

Located in the agricultural area of eastern Marathon County, the economic health and vitality of Harrison is affected by the economic health of the agricultural economy. However, the agricultural economy is subject to national and international pressures, creating challenges for rural areas seeking to adapt to the changing economic environment and preserve their rural agricultural heritage.

The Marathon County agricultural economy is in a depressed state due to a downturn in prices for agricultural goods such as milk and ginseng. At the same time that prices for farm commodities are low, cash rents for Wisconsin farmland have increased, and the percentage of farm equity associated with real estate values has increased significantly. The average cost for agricultural land being converted to non-farm uses has increased from \$544 per acre in 1990 to nearly \$1,200 per acre in 2000; this compares with the average cost for agricultural land continuing in agricultural use, which has increased from \$612 per acre in 1990 to nearly \$1,000 per acre in 2000. When farms are not profitable and the value of land rises, farmers have a harder time competing for the land base.

Other forces that create an environment of change in the rural area:

- Net farm profits are increasingly a function of Federal United States Department of Agriculture (USDA) support payments.
- The average age of the current agricultural owner/operator is nearly 55; a large number are nearing retirement.
- The low entry rate into agriculture reflects the high capital investment and low profit margins.
- Crop land and open space are being broken up into smaller fields by rural residences.
- Crop land production is being concentrated into fewer, larger operations.
- Soil erosion is increasing and soil organic matter content is decreasing.
- Environmental regulation of farms by the State and Federal government continues to increase. Agriculture is identified as a major non-point source of water pollution (sediment and nutrients) in the U.S.
- Conflicts between various land uses in rural areas are increasing.

Key Economic Sectors

Key sectors of a regional economy can be identified by size, by growth or decline in employment, or by a concentration of the industry in the local area exceeding the national concentration. An industry that shows a higher concentration of employment than the national average is considered a "basic industry" and is identified by a technique called "Location Quotient" analysis. Basic industries are those sectors that export a product or service from the local community into the national or international economy. They are a critical part of the "economic engine" for a region, affecting the growth and health of many dependent sectors such as retail, transportation, construction, and local services.

^{*} Source: Marathon County Task Force on the Rural Economy, Agricultural Issues in Marathon County, January 10, 2003 and Report of the Marathon County Task Force on the Rural Economy, April 2003.

Table 11-1: Marathon County Top 10 Industry Groups Based on Number of Employees (March 2001)

•		-	Numeric change		
Industry Group	Employers	Employees	1-year	5-year	
Health Services	139	4,646	251	-276	
Lumber & Wood Products	41	4,438	-30	253	
Educational Services	22	3,792	108	243	
Eating and Drinking Places	192	3,554	219	335	
Fabricated Metal Products	32	3,458	-184	168	
Insurance Carriers	24	3,339	-171	*	
Miscellaneous Retail	120	3,142	206	1,206	
Paper and Allied Products	11	2,649	4	*	
Industrial Machinery & Eqmt	37	2,642	41	697	
Wholesale Trade – Durable	164	2,521	-89	63	

*data suppressed to maintain confidentiality

Source: Wisconsin Department of Workforce Development, ES-202,

December 2001

Local Economic Environment

The population of Marathon County grew from 115,400 in 1990 to 125,834 in 2000, an increase of 10.3% compared to an 8.5% increase in the State and 8.7% in the U.S. The most recent estimates show an annual growth rate of 0.7% in all three jurisdictions. (Wisconsin Department of Administration [WDOA], Demographic Services, 2002) Population growth has been concentrated in the urbanized area surrounding Wausau.

Table 11-2 illustrates population and employment information for the Town of Harrison. In 2000, there were 127 employed

people in the Town of Harrison. Data show that most people in Harrison were self-employed or in farming.

Because self-employment and farm employment are not covered under the State's unemployment compensation law, totals in that category were estimated by the North Central Wisconsin Regional Planning Commission (NCWRPC), using the Agricultural Census and figures from Wisconsin's Department of Workforce Development (DWD).

Table 11-2: Population and Employment by Sector, 2000

POPULATION	418		
EMPLOYMENT:			
Commercial	4		
Manufacturing			
Service			
Other	4		
Self-Employed/Farm	119		
TOTAL	127		

Source: Marathon County 2030 Population and Employment Projections Methodology Report, NCWRPC, 6/10/03

Employment Projections

Information on employment in Marathon County is gathered separately for non-farm and farm employment. The DWD collects data on non-farm employment. The DWD estimated non-farm employment in Marathon County to be 49,407 in 1990 and 65,630 in 2000. This represents about a 33 percent increase over ten years. Data on farm employment is collected by the Census of Agriculture and consists of hired farm labor and operators. In 1987, farm employment in Marathon County

was estimated to be 11,643 and in 1997 it was estimated to be 8,298. This represents a decrease of almost 29 percent.

The NCWRPC computed employment projections, using a low, moderate and high growth scenario, based on the assumption that the historical growth rates described above would continue through 2030. The moderate-level projections are shown in Table 11-3.

Table 11-3: Employment Projections in 5-Year Increments

	Total Employment by Year						
	2000	2005	2010	2015	2020	2025	2030
Harrison	127	124	121	118	114	111	108
County	72,508	75,625	78,742	81,859	84,976	88,093	91,210

Source: Marathon County 2030 Population and Employment Projections Methodology Report, NCWRPC, 6/03

The projections indicate declining employment for the Town of Harrison under moderate employment growth. By the year 2030, it is estimated that the Town of Harrison will provide employment for 108 workers. This estimate reflects a 15 percent employment decline, and reflects the historical countywide decline in agricultural employment of almost 29 percent between 1987 and 1997.

Table 11-4 shows the percent change in projected employment using a low, moderate and high growth scenario. The low and moderate growth percentages are similar for Harrison because of the relatively low numbers involved in the decline. Harrison's projected employment varies from a decline of almost 15 percent at low growth (106 workers) to an increase of almost 9 percent (138) workers) by 2030.

Table 11-4: Percent Change in Employment, 2000-2030

	Percent Change in Employment by Growth Rate					
	Low Growth Moderate High Grov Growth					
Harrison	-14.9% (106)	-15% (108)	+8.6% (138)			
County	21%	26%	34%			

Source: Marathon County 2030 Population and Employment Projections Methodology Report, NCWRPC, 6/03

Major Local Employers

Local residents commute to Wausau and Antigo to work. Many Harrison residents are self-employed or retired.

Issues

No economic development issues were identified in Harrison.

12. Intergovernmental Cooperation

This analysis presents an inventory of existing mechanisms that the Town of Harrison uses to coordinate with other units of government, including: Marathon County, adjacent towns, the school district, the State of Wisconsin and the Federal government. The purpose of this analysis is to identify the existing cooperative mechanisms and summarize the major challenges and issues regarding intergovernmental cooperation and regional planning, including

- Opportunities to reduce or eliminate duplication of services;
- Incompatible goals, policies and development;
- Mechanisms for conflict resolution;
- Opportunities for joint planning and decision making.

Mechanisms for cooperation and coordination primarily take the form of intergovernmental agreements, leases and contracts, and regulatory authority. These can occur between the Town of Harrison and other local, regional, State or Federal entities. Following is a brief description of the various functional areas and services that require intergovernmental coordination at various levels.

Shared Public Services and Facilities

Law Enforcement—Law enforcement is provided by the County sheriff.

Fire and Emergency Response- The Town of Harrison contracts with Birnamwood Fire and Ambulance for service.

Utilities- The Town does not provide sewer or water services; residents have private waste disposal systems and individual wells.

Relationships to Other Governmental Entities

Surrounding Municipalities – The Town of Harrison is bordered by the Langlade County to the north, Shawano County to the east, Town of Plover to the south, and Town of Hewitt to the west. The Towns of Hewitt and Plover are concurrently preparing comprehensive plans, which will increase opportunities for coordination and cooperation on matters of common interest.

School District- Harrison is located in the Antigo School District

Marathon County- The County provides several services to the Town including: law enforcement through the Sheriff's Department, 911 dispatch service, access permits, maintenance and improvement of County Highways, planning and permitting oversight regarding shoreland, wetland and floodplain regulation, private sewage system regulation, and animal waste and manure management. The County also provides oversight on compliance with County soil and water conservation policy for the Farmland Preservation Program.

Regional Agencies- The North Central Wisconsin Regional Planning Commission (NCWRPC) provides planning and mapping assistance.

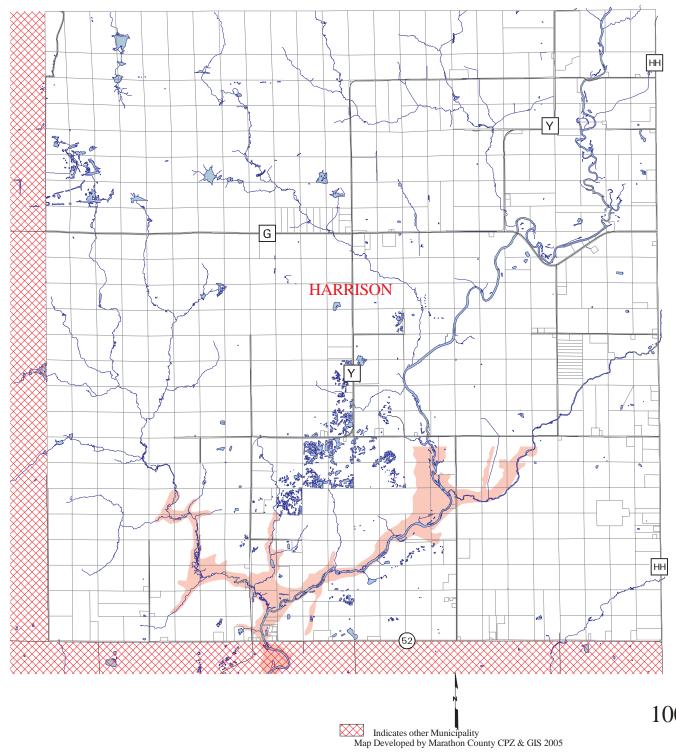
State and Federal Agencies- The Town has little direct contact with State or Federal agencies. However State agencies regulate certain activities such as access onto State roads, shoreland, floodplain and wetland zoning oversight, navigable waters protection, compliance with water quality standards, farmland preservation tax credits and managed forest tax credit programs.

Cooperative Plans or Agreements

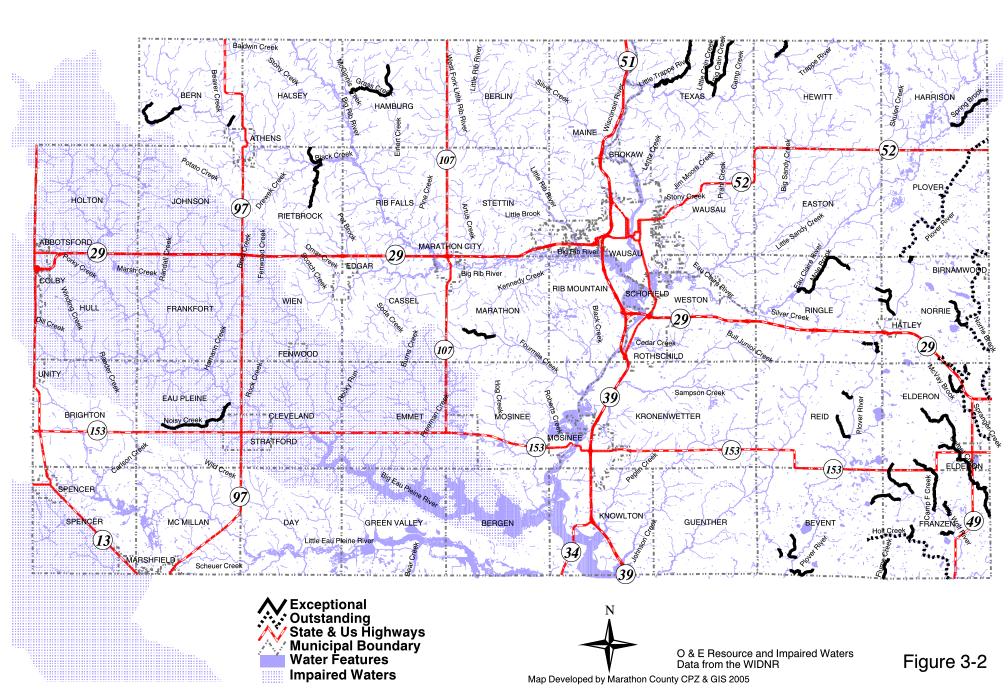
Mutual Aid— Fire and ambulance service is provided from the Village of Birnamwood. Harrison pays a retainer to Birnamwood Fire and Ambulance as well as a per call fee for service.

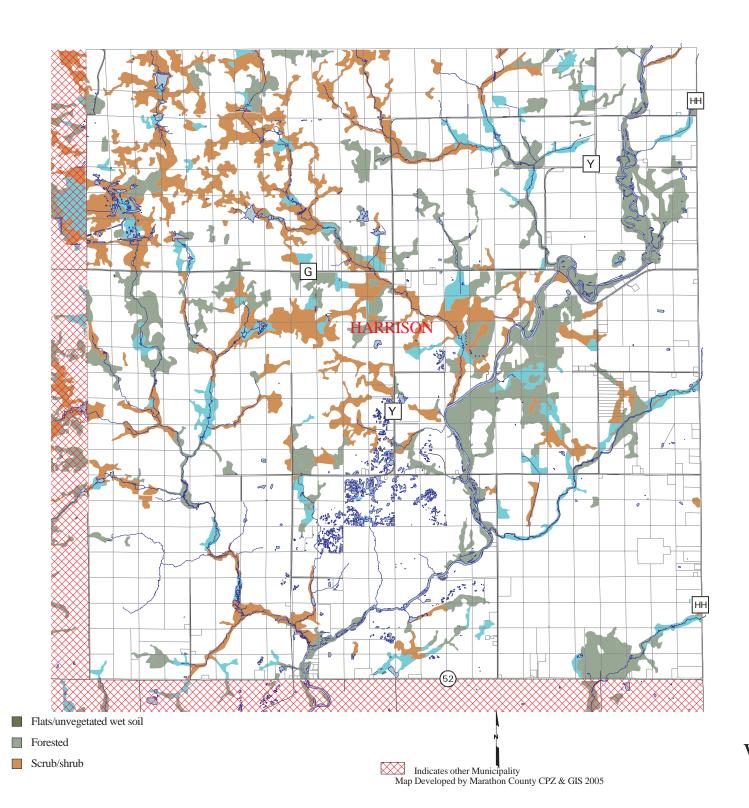
Existing or Potential Conflicts

• **Service Provision**—Harrison would like to investigate various fire and ambulance service providers. They may want to investigate sharing services with Hewitt or other Towns, including towns in Langlade County.



MARATHON COUNTY OUTSTANDING & EXCEPTIONAL RESOURCE AND IMPAIRED WATERS





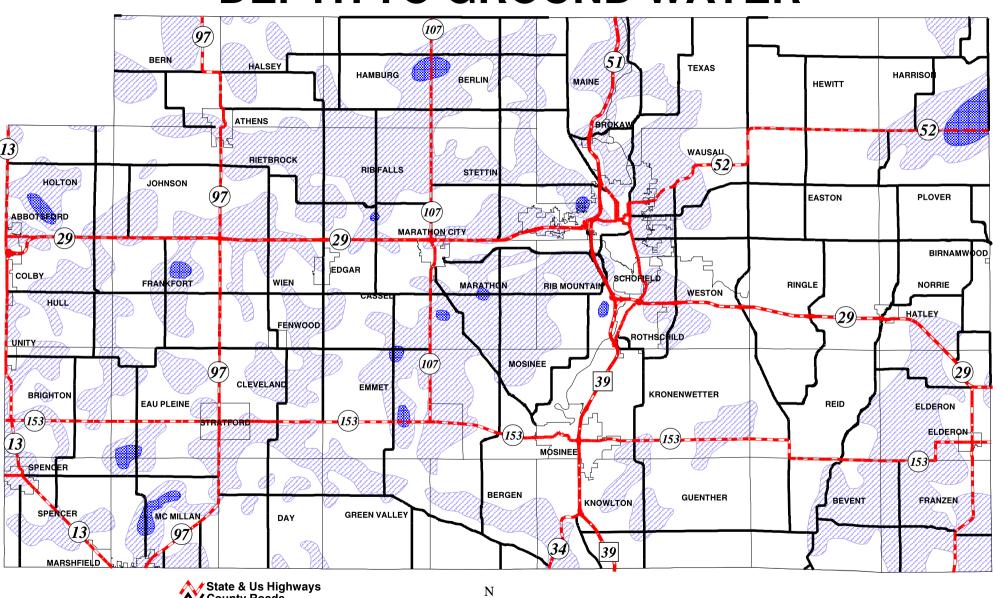
Aquatic beds

Emergent/wet meadow

Filled/drained wetland

Figure 3-3 Wetland Types HARRISON

MARATHON COUNTY DEPTH TO GROUND WATER





Source: "Irrigable Lands Inventory --- phase 1 Groundwater and Related Information", I.D. Lippelt and R.G. Hennings, MP -81-1, WGNHS 1981.

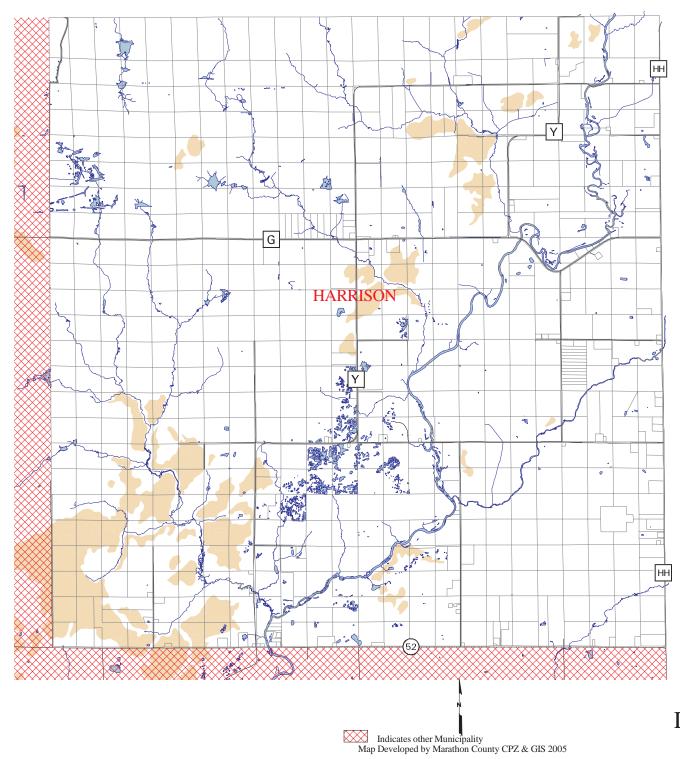
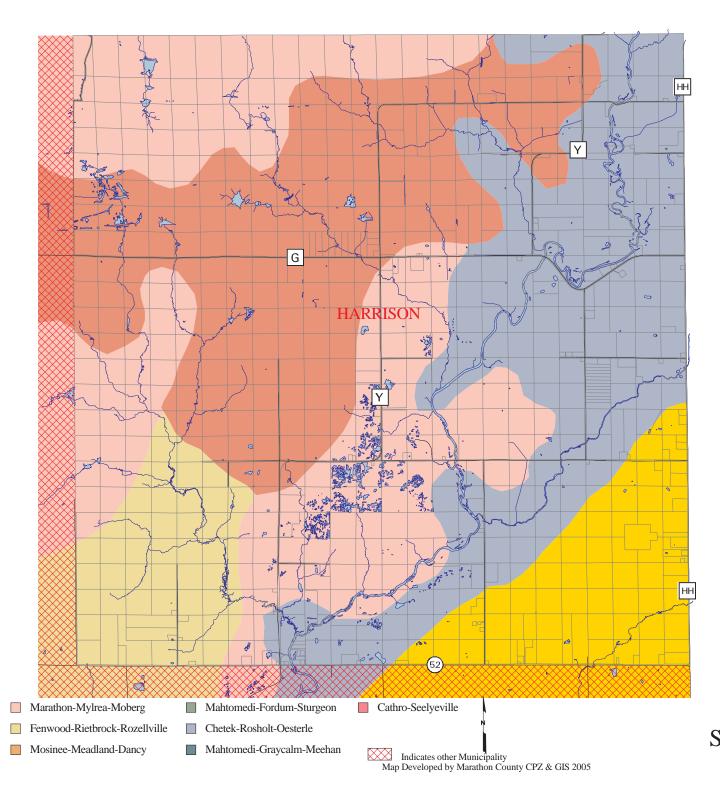


Figure 3-5
Depth To Bedrock
HARRISON

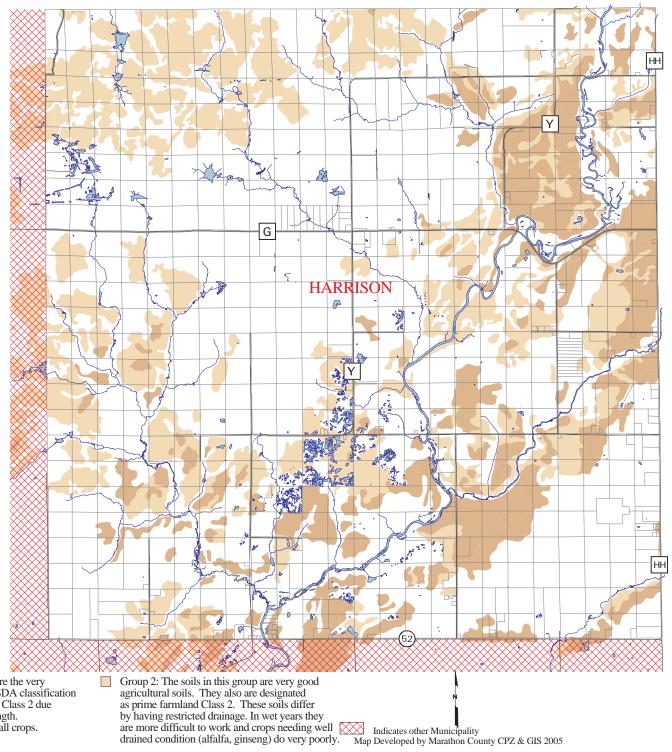


Magnor-Cable

Kennan-Hatley

Loyal-Withee-Marshfield

Figure 3-6
Soil Associations
HARRISON



Group 1: The soils in this group are the very best in Marathon County. The USDA classification for these soils are prime farmland Class 2 due to climate and growing season length. They are well suited for growing all crops.

Figure 3-7 Prime Farm Land **HARRISON**

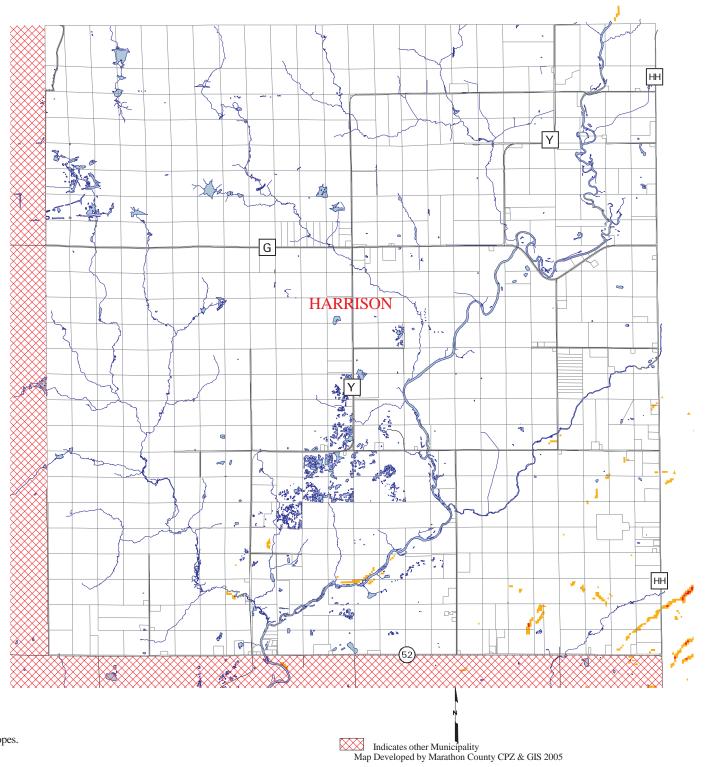
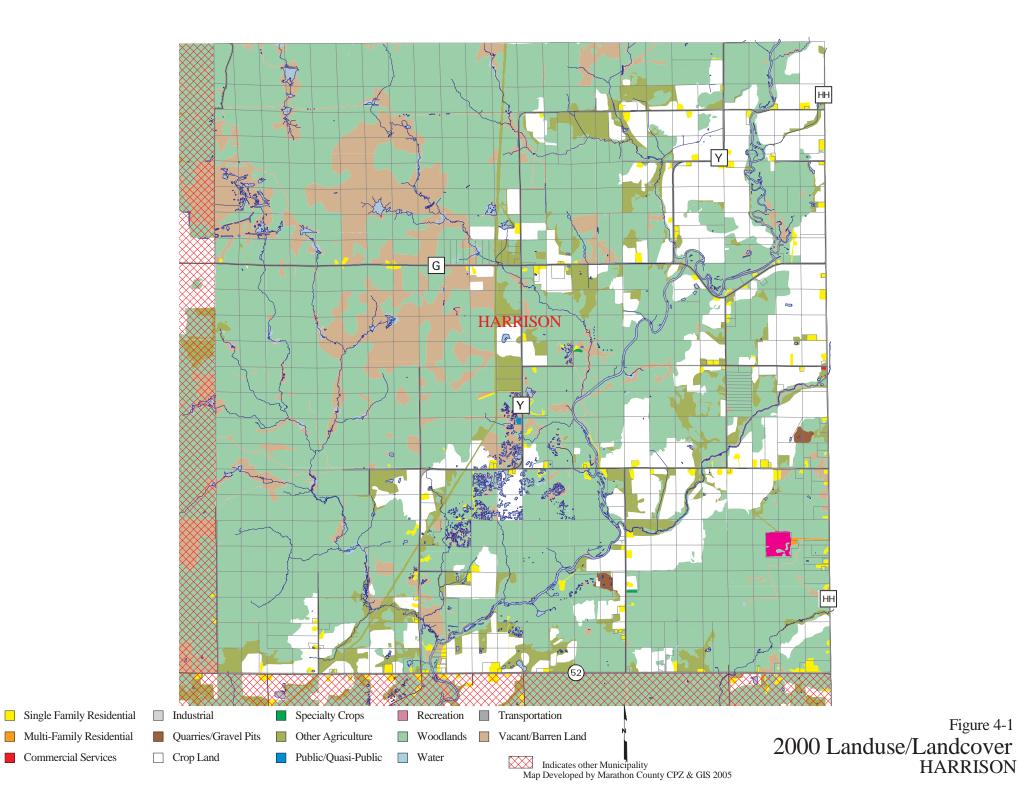


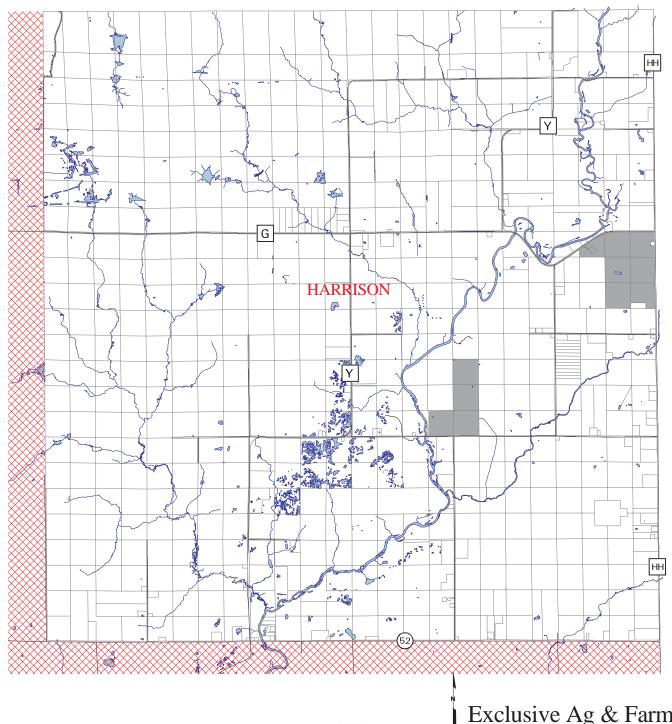
Figure 3-8
Slopes
HARRISON

D - generally 12-20% slopes

E - generally greater than 15% slopes.



Commercial Services



Farmland pres contracts

Exclusive ag zoning

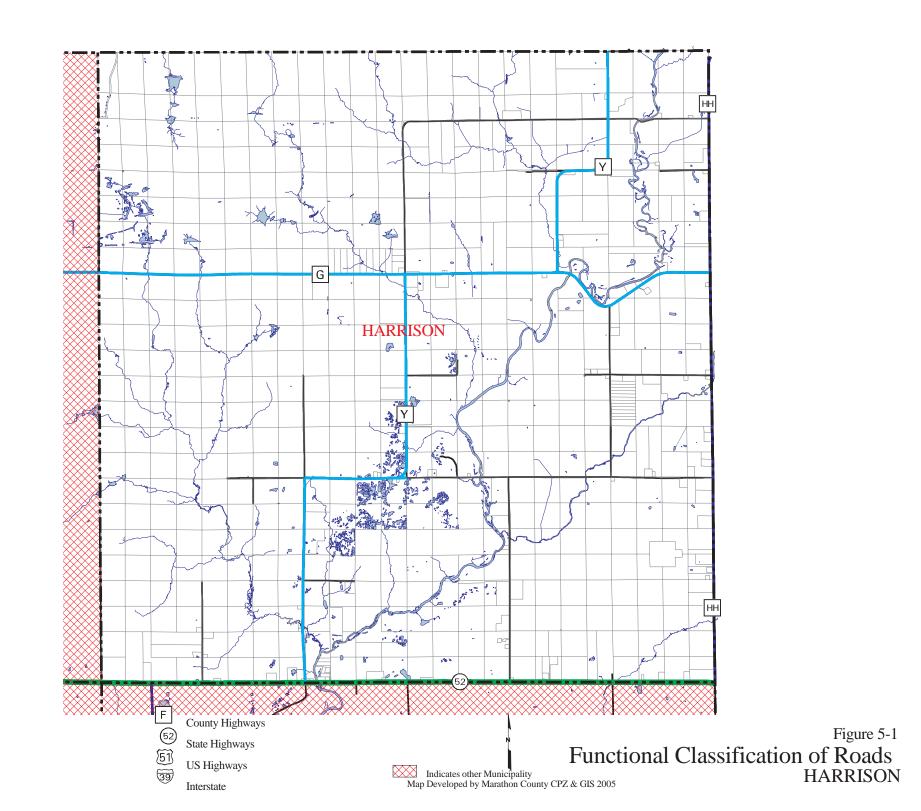
Figure 4-2

Exclusive Ag & Farmland Preservation

Map Developed by Marathon County CPZ & GIS 2005

Figure 4-2

HARRISON



Principal ArterialMinor ArterialMajor CollectorMinor Collector

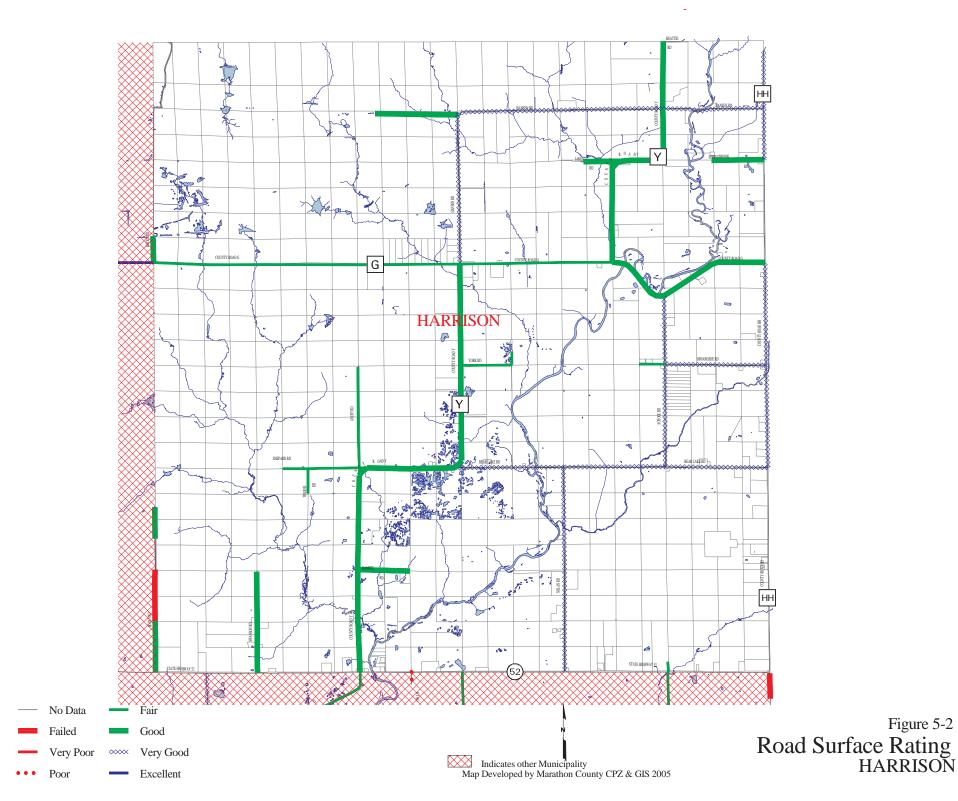


Figure 5-2

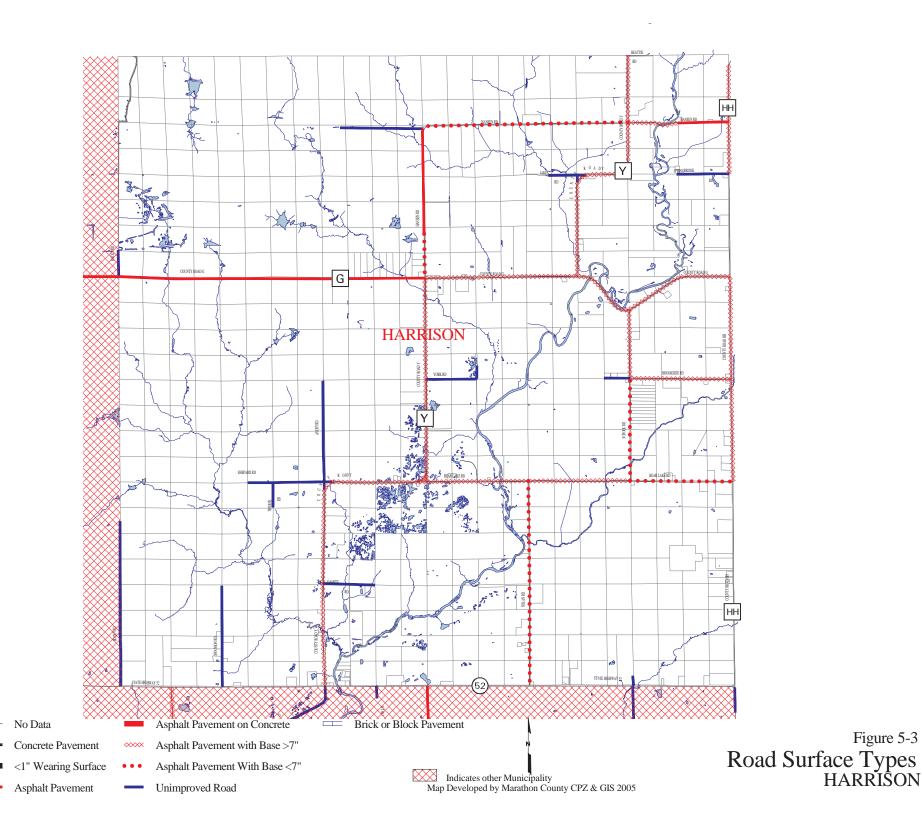


Figure 5-3

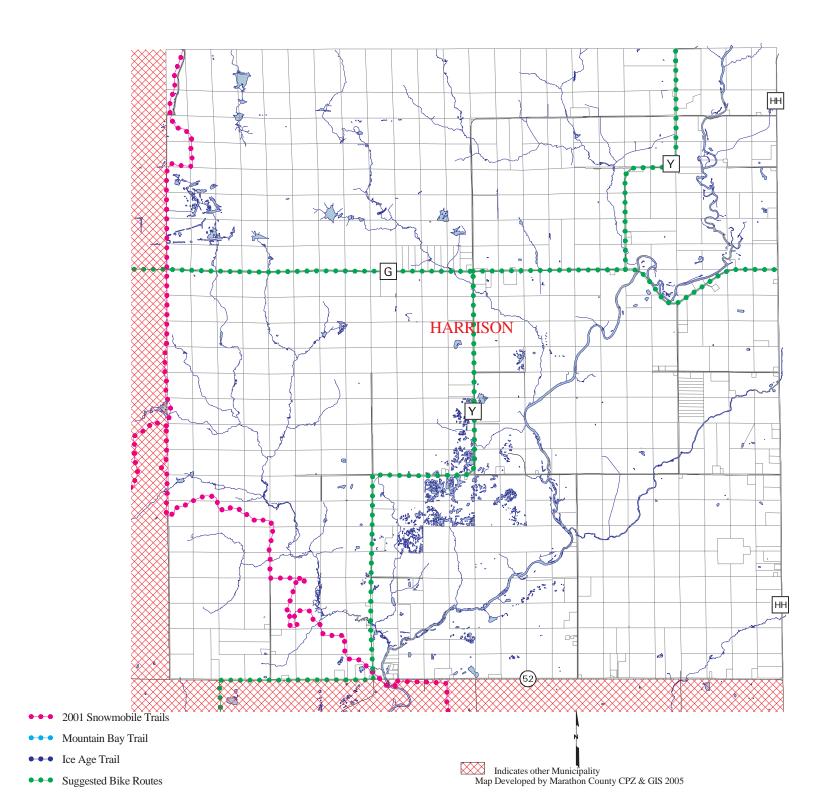
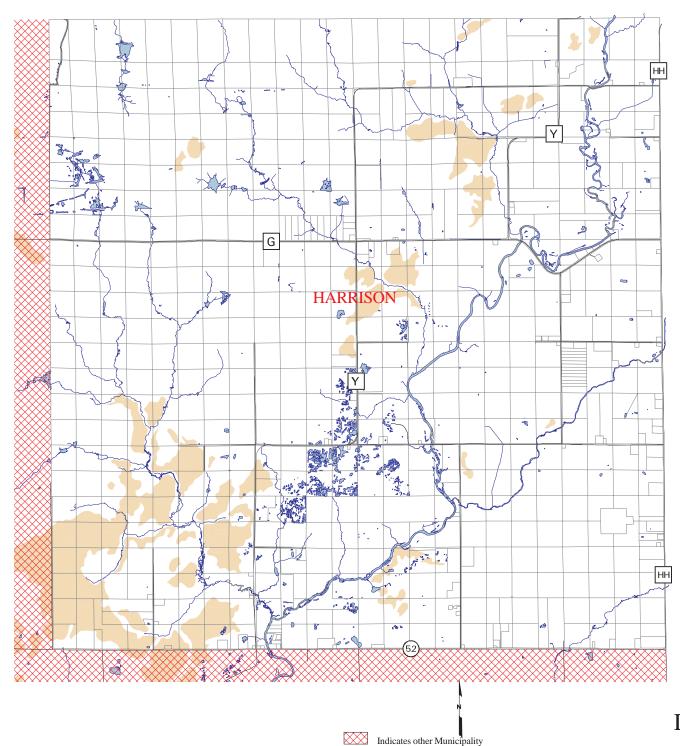


Figure 5-4
Trails
HARRISON



■ 0 - 20" (Quarries) □ >60" 20 - 40 " 40-60"

Indicates other Municipality
Map Developed by Marathon County CPZ & GIS 2005

Figure 6-1
Depth To Bedrock
HARRISON

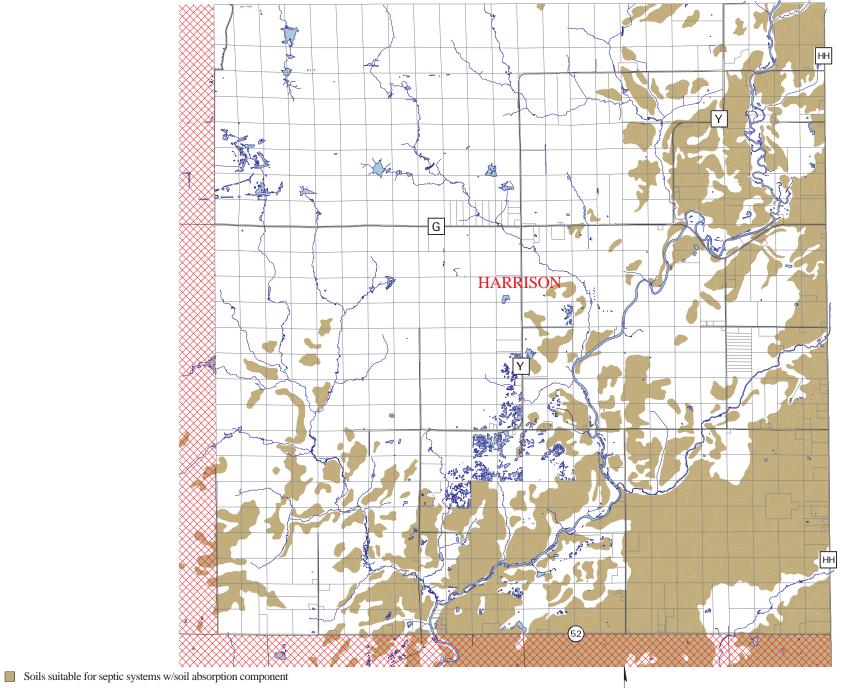


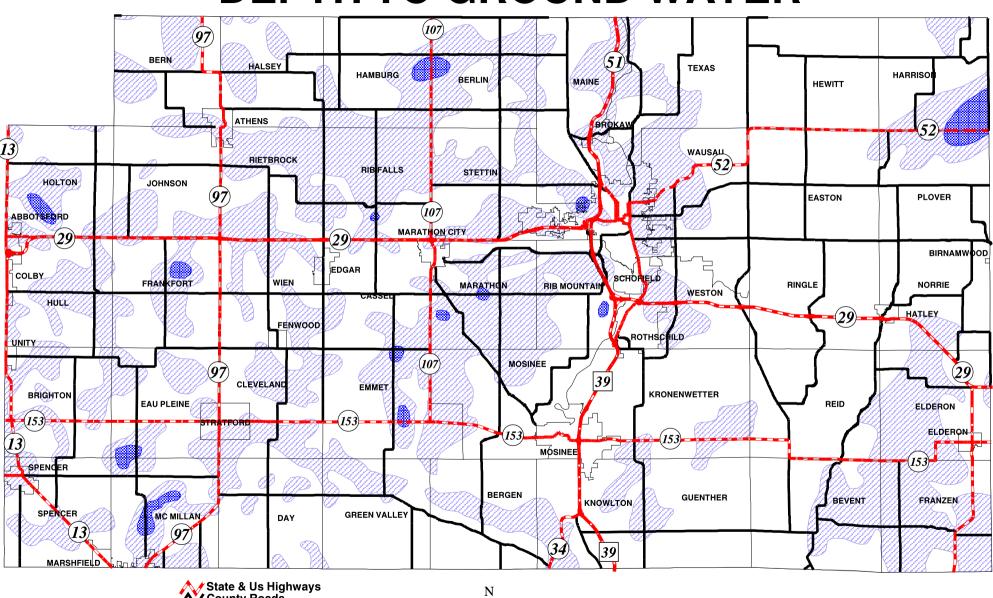
Figure 6-2

Suitable Soils-Septic Tank Absorption

HARRISON

Map Developed by Marathon County CPZ & GIS 2005

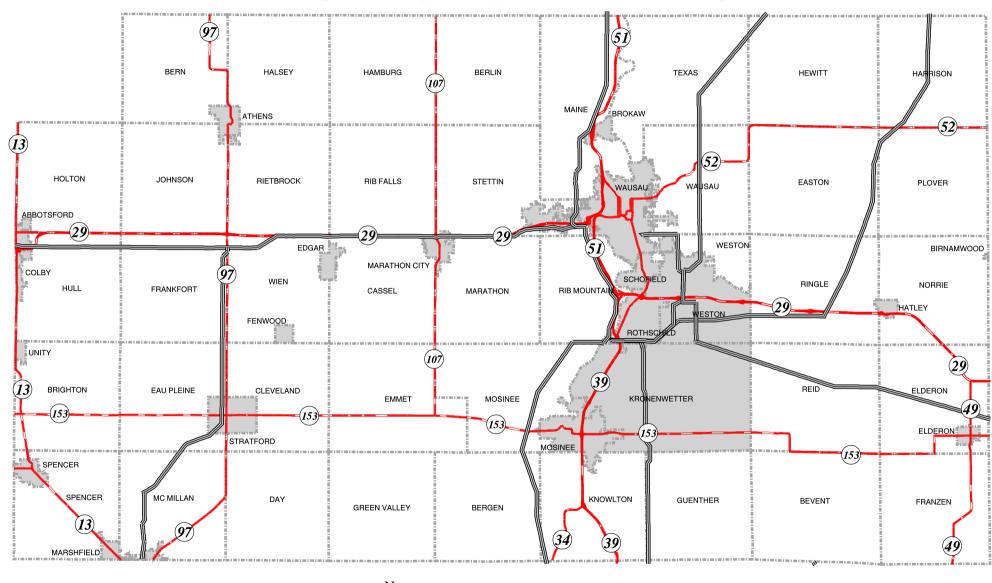
MARATHON COUNTY DEPTH TO GROUND WATER





Source: "Irrigable Lands Inventory --- phase 1 Groundwater and Related Information", I.D. Lippelt and R.G. Hennings, MP -81-1, WGNHS 1981.

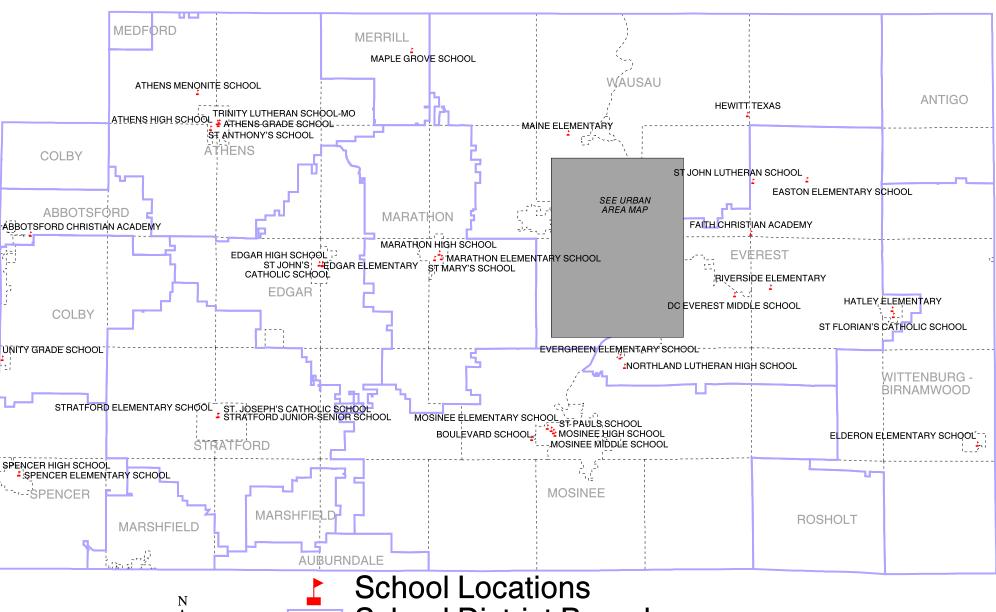
MARATHON COUNTY EXISTING POWERLINES





Existing Power Lines
State & Us Highways
Municipal Boundary
Incorporated Municipality

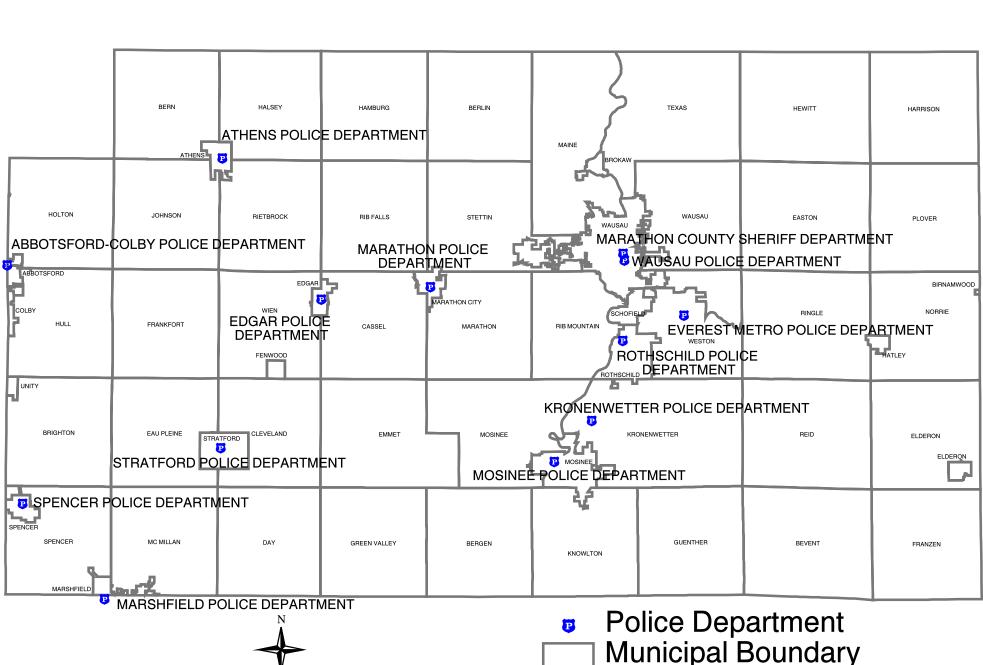
MARATHON COUNTY SCHOOL DISTRICTS AND SCHOOLS RURAL AREA MAP



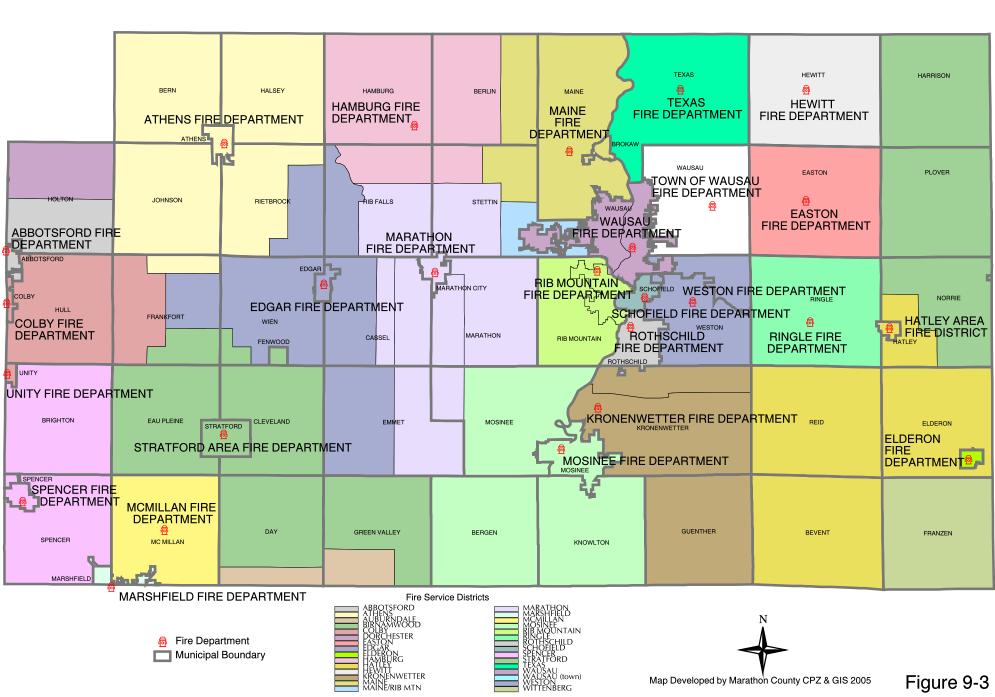


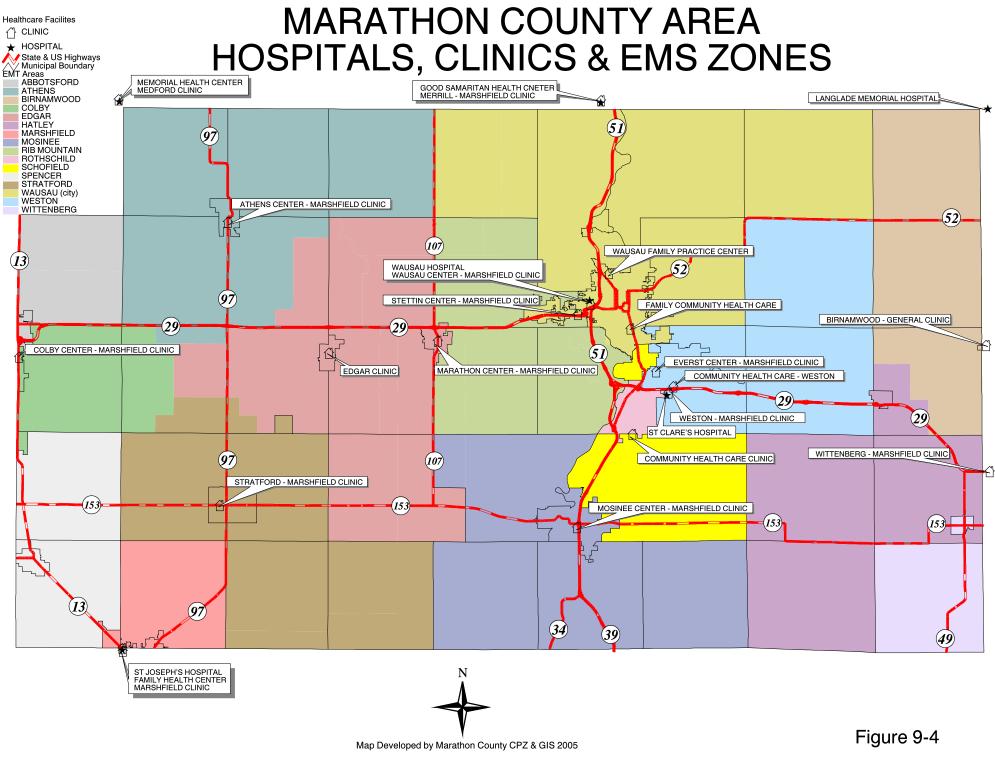
School Locations
School District Boundary
Municipal Boundary

MARATHON COUNTY LAW ENFORCEMENT



FIRE DEPARTMENTS & SERVICE AREAS





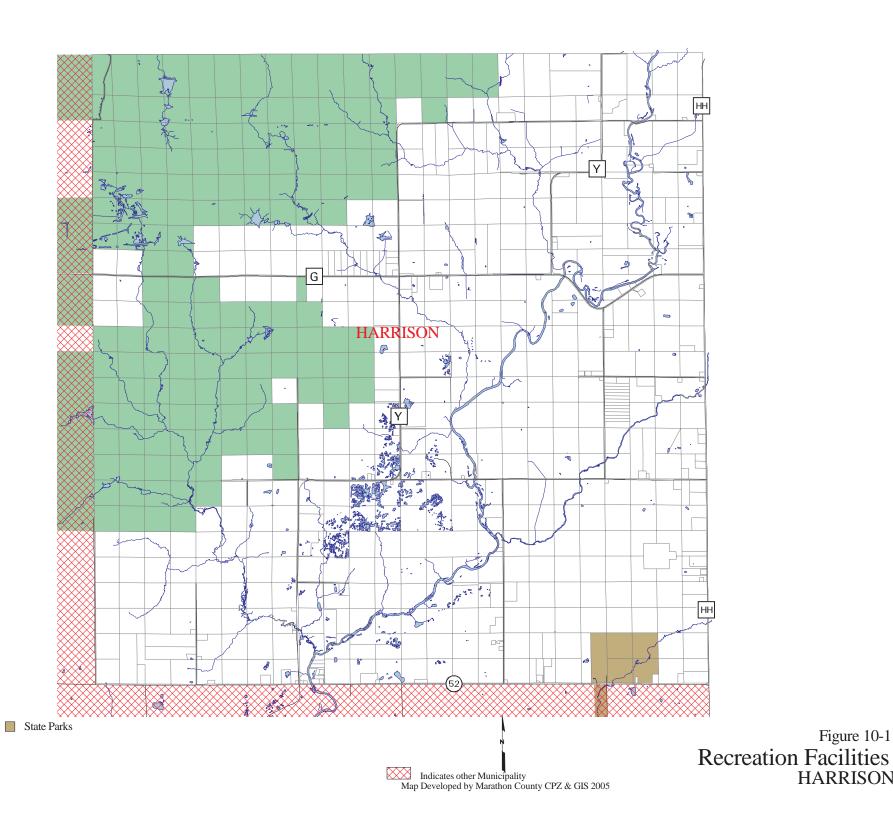


Figure 10-1

HARRISON

Municipal Parks

County Parks

County Forest Units

Town of Harrison

Comprehensive Plan

Goals, Objectives, Policies & Implementation

January, 2006

Table of Contents

1. Introduction	1
2. Natural Resources Element	4
3. Land Use Element	6
4. Transportation Element	10
5. Utilities Element	12
6. Housing Element	13
7. Cultural Resources Element	14
8. Community Facilities Element	15
9. Parks Element	16
10. Economic Development Element	17
11. Intergovernmental Cooperation Element	
12. Implementation Element	19

Appendices

- A. State Comprehensive Planning Goals
- B. Marathon County Guiding Principles
- C. Ordinances and Resolutions for Adoption
- D. Public Participation Plan
- E. Bibliography of Related Studies and Plans
- F. Road Paving Criteria

List of Tables

Table 3-1: Future Land Use, 2005	8
Table 3-2: Acreage Projections, 2000-2030	
Table 4-1: Summary of Pavement Conditions	. 11
Table 12-1: Criteria to Consider When Reviewing Plan	
Changes	. 22
Table 12-2: Implementation Plan Actions	

List of Figures

- Figure 3-1: Future Land Use Figure 3-2: Existing Zoning
- Figure 3-3: Development Constraints Figure 4-1: Functional Classification
- Figure 4-2: WISLR Ratings
- Figure 4-3: WISLR Road Surface Type

List of Acronyms

303 (d) list—waters designated as "impaired" under section 303 (d) of the U.S. Clean Water Act.

AADT—Annual Average Daily Traffic

AHI—Architecture & History Inventory (a database of the Wisconsin Historical Society).

BMPs—Best Management Practices

CCR&R—Child Care Resource and Referral Network

CDBG—Community Development Block Grant

CES—Cropland Evaluation System (Marathon County)

CIP—Capital Improvement Program

Comm 83—Chapter 83 of the Wisconsin Administrative Code under the Department of Commerce, setting standards for regulation of private sewage systems.

CRP—Conservation Reserve Program

CTH—County Trunk Highway

CWA—Central Wisconsin Airport

DWD—Department of Workforce Development

EMS—Emergency Medical Services

EMT—Emergency Medical Technician

ERW—Exceptional Resource Waters, a designation by the Wisconsin Department of Natural Resources.

FEMA—Federal Emergency Management Agency

FIRM—Flood Insurance Rate Maps

HOME—Home Investment Partnerships Program

HUD—U.S. Department of Housing and Urban Development

LHOG—Local Housing Organization Grant

LRTP—Long Range Transportation Plan (Prepared by the Wausau Metro Planning Organization for the Metro area).

LWRMP—Land and Water Resource Management Plan (Marathon County)

MPO—Wausau Area Metropolitan Planning Organization

NCHC—North Central Health Care

NCWRPC—North Central Wisconsin Regional Planning Commission

NRHP—National Register of Historic Places

NTC—Northcentral Technical College

ORW—Outstanding Resource Waters, a designation under the U.S. Clean Water Act.

PASER—Pavement Surface Evaluation Rating

PMP—Pavement Management Plan

SHPO—State Historic Preservation Office

STF Data—Summary Tape File, referring to data files of the 2000 U.S. Census.

STH—State Trunk Highway

TDP—Transit Development Plan (Wausau Area Transit System)

TIP—Transportation Improvement Program (Marathon County)

USDA—United States Department of Agriculture

USH—U.S. Highway

UW-MC—University of Wisconsin—Marathon County

WATS—Wausau Area Transit System

WDA—Wisconsin Department of Agriculture

WDNR—Wisconsin Department of Natural Resources

WDOA—Wisconsin Department of Administration

WDOT—Wisconsin Department of Transportation

WHEDA—Wisconsin Housing and Economic Development Authority

WISLR—Wisconsin Information System for Local Roads

WPD—Wetland Protection District

WPS—Wisconsin Public Service Corporation

iii

1. Introduction

This document represents the core of the Town of Harrison Comprehensive Plan. It outlines the community's goals and objectives to address the issues and opportunities identified in the *Conditions and Issues Report* and guide future growth. Goals and objectives have been developed relative to each of the required plan elements. For each of the goals and objectives, specific policies, strategies and/or actions are recommended to enable the community to achieve them. The Implementation Element at the end of this document compiles and prioritizes all the recommended action steps and identifies who is responsible for implementation.

Coordinating planning efforts with other jurisdictions was integral to the local comprehensive planning process. By working in sub-area groups, participating in county-wide planning workshops, and directly communicating with neighboring communities, all participating local municipalities have taken steps to foster intergovernmental cooperation and land use coordination. To achieve a level of broad consistency, all participating municipalities worked together to identify common likes, dislikes and concerns impacting their respective sub-areas. These were distilled into ten countywide guiding principles that describe a broad, shared vision of the future of Marathon County.

Local plans must also address the State's fourteen planning goals outlined in Wisconsin Statutes 66.1001, to the extent applicable. The sub-area concerns are summarized below and the State planning goals and countywide guiding principles are summarized in Appendix A and B, respectively.

Sub-Area Concerns

Following is a list of concerns shared by the four rural planning sub-areas outside of the Wausau metropolitan area. These were developed through a Strengths, Weaknesses, Opportunities, and Threats (SWOT) exercise to identify aspects of the sub-areas that participants liked, disliked, or had concerns about. Because many of the concerns were shared by all the rural sub-areas, they were consolidated into one list as follows:

General Concerns:

Local Development Control

- Maintain local control of development regulation
- Private property rights

Degree of Regulation

- Prefer minimal development regulation, but open to some regulation to protect prime farmland, rural character, natural resources and water quality
- Managed development preferred

Land Use and Development:

Preserve Rural Character

- Rural settings (small farms dotting landscape)
- Low population density (1, 2 and 5 acre lots)
- Ample open space, woodlands, natural areas, etc.
- Small town living familiar, friendly, safe
- Concentrate commercial and industrial development in cities or villages

Farm/Non-farm Conflicts

- Increased demand (from new residents) for higher level of service, paved roads, etc.
- Traffic conflicts between passenger vehicles and farm equipment
- Road paving and dust control Costs? Benefits?
- Road damage from heavy farm equipment
- Increased complaints about farm smells, dust, noise

Urban Fringe Development

- Annexation lack of control over where, when and what might develop
- Some support for cooperative boundary agreements to manage growth at urban edge
- Planned development preferred but wary of over regulation

Identity and Appearance

- Lack of design/aesthetics control for commercial and industrial development (buildings, landscaping, signs)
- Cluttered appearance of major road corridors (signs, power lines, no landscaping)
- Improve housing maintenance in some neighborhoods
- Land use conflicts i.e. old industrial adjacent to residential

Preservation and Protection of Resources:

Preserve/Protect Natural Resources

- Preserve woodlands (highest ratings in survey responses), wetlands, rivers
- Protect/maintain natural character and scenic quality
- Maintain access to natural areas

Fiscal/Economic:

Strong and Diverse Tax Base

- Loss of land, jobs and population due to annexation
- Loss of taxable land due to public purchase (e.g. County Forests)
- Redevelop under-utilized land, particularly along Wisconsin River
- Maintain/foster diverse mix of land uses
- Competition for industrial development particularly between urban and fringe areas

Farmland Preservation (primarily economic issue)

- Loss of small/family farms to development or larger farms
- Mega farms [also concerns about environmental impacts]
- Decreasing number of active farms
- Conversion of farms to non-farm development
- Land value inflation (high taxes)

Infrastructure:

Traffic and Transportation System

- Too many driveway openings on busy road corridors
- Lack of future street planning
- Limited river crossings
- New interchange locations and loss of highway access
- Highway frontage roads access limitations

Protect Water Supply

2

- Depletion or degradation due to high volume users (mega farms, new high school, industry)
- Limited access to water for wells in some areas (bedrock, etc.)

Sewer and Septic System Availability

- Poor soil drainage limits suitability for on-site waste treatment systems in some areas
- "Comm83" opens more areas for on-site treatment systems
- Interest in looking at alternatives to centralized wastewater treatment

Cost Efficient Community Services

- Shared services generally good fragmentation an issue in some areas
- Maintain and improve services w/o increasing taxes
- How/who will pay for increased services
- Lack of transit access in rural and fringe areas

Goals, Objectives, Policies, Strategies & Actions

This section is intended to address issues and opportunities as identified by the Town of Harrison in its *Conditions and Issues Report*. These issues and opportunities are captured in the policies, strategies and actions set forth with the intent of achieving the goals identified by the community. These goals work in concert with the goals set forth by the State of Wisconsin (Appendix A) and Marathon County (Appendix B).

Definitions:

• **Goal:** A goal is a statement that describes a desired future condition. The statement is broad in scope and describes general concepts or things the community hopes to accomplish.

- **Objective:** An objective is a statement that describes a specific course of action to achieve a goal or address an issue.
- **Policy:** A policy is a general course of action or rule of conduct to be followed to achieve community goals and objectives.
- Strategies: As the name implies, strategies are strategic approaches that may involve a series of individual actions to achieve a specific goal or objective.
- **Actions:** An action describes a specific effort that will be undertaken to achieve a specific goal or objective.

2. Natural Resources Element

Town of Harrison residents support preservation of natural areas, including the many woodlands, wetlands and open spaces in the Town. The Town has developed the following goals and actions to demonstrate its support.

Goal 1: Protect rare natural resources, including wetland and river communities, from intensive development.

 Objective: To continue working with Marathon County and the WDNR to ensure appropriate preservation of wetlands and shorelines.

Policies:

• The Town of Harrison will continue to abide by State, County, and DNR regulations.

Strategies/Actions:

• Remain up-to-date on any rule or regulation changes.

Goal 2: Protect and enhance the woodlands in Harrison.

 Objective: To encourage use of existing forest laws to prevent fragmentation of large sections of woodland and to encourage use of good forest management. Objective: To work with Marathon County to ensure appropriate uses in the Harrison-Hewitt Forest Unit.

Policies:

 The Town of Harrison encourages the protection and enhancement of local woodlands

Strategies/Actions:

 Work with UW-Extension, the County, the WDNR, and local branches of the U.S. Forest Service to research and distribute information on good forest practices to local forest land owners.

Goal 3: Protect the Town's water resources, including potable water.

 Objective: To work with Marathon County and Langlade County in water quality and improvement planning for the Springbrook Creek watershed in Harrison

Policies:

• The Town of Harrison strongly supports the protection of water resources.

Strategies/Actions:

• Participate in discussions with Marathon and Langlade Counties about the Springbrook Creek Watershed.

Goal 4: Encourage the protection and preservation of prime farmland for agricultural production.

 Objective: To continue use of agricultural Best Management Practices (BMPs) to reduce soil erosion, decrease sedimentation into surface waters, and increase proper nutrient crediting to protect surface resources.

Policies:

• The Town of Harrison recognizes the importance of prime farmland as an important agricultural resource, now and in the future

Strategies/Actions:

• Work with UW-Extension, Marathon County, and the NRCS to encourage participation in farmland conservation practices, including BMPs.

3. Land Use Element

A majority of the Town of Harrison is currently in woodland or cropland. The County-owned Harrison-Hewitt Forest Unit takes up much of the northwest portion of the Town. There are also over 1,000 acres of land under Forest Crop Law and Farmland Preservation Contracts. Residential development is scattered throughout the Town, with higher concentrations in the southeast quadrant. Harrison residents in general support parcel sizes of ten acres or less, but also do support some land use policies and/or regulations that could provide better management of growth in the Town.

Goal 1: Preserve the rural character settlement pattern in Harrison.

- Objective: Consider development of a land division ordinance to provide for orderly residential development.
- Objective: To determine an appropriate minimum lot size that will support Harrison's concept of rural character.
- Objective: To encourage residential development to locate in areas where water availability and access are adequate.
- Objective: To allow development that preserves rural character (i.e., horse riding stables).

Policies:

• The Town of Harrison recognizes its rural character as an important and attractive asset.

Strategies/Actions:

- Consider adopting guidelines for minimum lot size.
- Encourage higher density development to areas that would not greatly compromise rural character.
- Identify types of development which are preferred to preserve rural character (i.e. horse riding stables)

Goal 2: Encourage development to locate away from prime farmland.

 Objective: To discourage residential development on large blocks of prime farmland.

Policies:

• The Town of Harrison supports agriculture as a prime resource in the Town.

Strategies/Actions:

- Encourage local operators to participate in regionally-based agricultural forums and programs.
- Research exclusive agricultural zoning.
- Hold meetings to discuss adopting guidelines or ordinances to guide residential development to certain areas, away from active farmland.

Goal 3: Consider development of regulations for specified uses in Harrison.

- Objective: To investigate the need for mobile home regulations.
- Objective: To investigate nuisance issues (dilapidated buildings, abandoned junk and refuse) and consider regulation.

Policies:

• The Town of Harrison encourages the development of regulations for mobile homes and nuisance issues.

Strategies/Actions:

- Inventory mobile homes in the Town, and decide if an ordinance is necessary.
- Address the problem of hunting trailers, campers, etc. that are not registered or lived in year-round.
- Develop and adopt an ordinance on mobile homes, if applicable.
- Compile a list of the types of things that are currently issues in Harrison and should be governed via ordinance.
- Consider developing and adopting an ordinance on old buildings, abandoned junk, etc.
- Develop hazardous materials/toxic waste ordinance.

Accommodating Future Growth

The population of Harrison has grown steadily since 1980, and is projected to increase another 35 percent by the year 2030 (WDOA).

Future Land Use – The Town of Harrison Future Land Use map, shown in Figure 3-1, illustrates the anticipated future pattern of land uses. The map includes fourteen land use categories to guide where new residential and non-residential development should be encouraged to locate or where development should be discouraged. Descriptions of each land use category and the number of acres within each category are provided in Table 3-1. Figure 3-3 shows areas with development constraints due to environmental conditions such as wetlands and floodplains, or policy constraints such as restrictive zoning or other programs (i.e., Exclusive Agriculture, Forest Crop Law). Areas where existing development precludes additional development are also shown.

Table 3-1: Future Land Use, 2005

Land Cover	Description	Acres	% of Total
Category	P		Land Area
Single Family	One family structures, farm	294	1%
Residential	residences, mobile homes		
Multi-Family	Multiple family structures with three	5	<1%
Residential	or more households, condos,		
	duplexes, apartments		
Commercial	Retail stores, taverns, restaurants,	1	<1%
Services	truck stops, gas stations, farm coops,		
	farm implement dealerships,		
	automobile dealerships, business		
	offices, motels/hotels, offices,		
	telephone/gas company		
Industrial	Saw/paper/lumber mills, dairies,	0	0
	industrial parks, trucking operations,		
	distribution centers		
Quarries/	Mining operations	29	<1%
Gravel Pits			
Cropland	Tilled agriculture, prime farmland	3995	17%
Other	Fallow, pasture and undetermined	1331	6%
Agriculture	agriculture, power lines and towers,		
	water towers, municipal wells		
Public/	Schools, churches, cemeteries,	241	1%
Quasi-Public	libraries, government buildings,		
	National Guard, utility facilities.		
Park and	Public and private parks, trails, ball	6710	29%
Recreation	fields, golf courses, playgrounds,		
	camp grounds, shooting ranges, etc.	00.15	200/
Woodlands	Privately-owned forested land,	9245	39%
	including nurseries, paper mill		
	forests, etc.	202	10/
Water and	Open waters, such as lakes, ponds,	302	1%
Wetlands	streams, rivers, creeks, reservoirs, etc.	2.7.6	20/
Transportation	Airports, highways, road right-of-	356	2%
	ways, railroads, logging roads	0.40	40./
Barren Land	Unused open land in wooded areas,	940	4%
	along streams, along roadsides	2.5	10/
Unknown	Former airbase	36	<1%
Total Land		23485	100%
Area			

Source: Future Land Use map (May 2005)

A majority of the future land use in the Town of Harrison is anticipated to be wooded. This includes privately-owned forest land at 39 percent, and most of the publicly-owned forest land (Park and Recreation) at 29 percent. An additional 23 percent is dedicated to agricultural use. Only about one percent of land in the Town is designated for residential use. These will be mostly single-family homes on larger lots scattered throughout the Town along County and other major roads.

Land Needs – Projections of future population and employment growth in the Town of Harrison are provided in the *Conditions and Issues Report*. These were used to estimate the amount of land needed to accommodate future residential and non-residential development over the next 20 years. Acreage projections were based on assumptions about density of houses per acre and employees per acre.

It is estimated over the next 20 years, 132 additional acres will be needed to accommodate future residential development and 3 additional acres are needed for future non-residential development. Sufficient acreage to meet estimated demand for new development has not been provided in the appropriate land use categories on the future land use map. The Town of Harrison does not wish to designate areas of preferred residential development at this time. It is likely that new large-lot, single-family development will continue to occur in areas designated for agriculture or woodland. In addition, the Town does not see a need or demand for any additional commercial development, therefore it did not identify any on the future land use map. If there is interest in utilizing land for a commercial use in the future, the Town will evaluate the request at that time.

Land developed for new residential and commercial use will most likely be converted from agricultural use and limited woodland use, instead of subdividing existing residential lots. This trend is illustrated in Table 3-2.

Table 3-2: Acreage Projections, 2000-2030

	Estimated Acreage Needed by Year						
	2000	2005	2010	2015	2020	2025	2030
Agricultural	6415	6392.5	6370	6347.5	6325	6302.5	6280
Residential	274	296	318	340	362	384	406
Commercial	3	3.5	4	4.5	5	5.5	6
Industrial	0	0	0	0	0	0	0

Source: Acreage based on estimates from Regional Planning Commission dated 10/29/03 and Marathon County

The agricultural category includes cropland, specialty crops, other agriculture and barren land use categories. The residential category includes single-family and multi-family uses. The non-residential category includes commercial, industrial and quarry uses. This table does not include land use categories that are generally not developable, such as public/quasi-public, recreation, water/wetlands, and transportation. It is assumed that all land developed for residential or non-residential use will be converted from agricultural use.

Consistency between Land Use and Zoning — Land use and zoning designations are related, but not necessarily identical. Land use categories tend to be fairly general whereas zoning districts regulate specific land uses and development requirements. Because the land use categories are general it is common for more than one zoning district to correspond to each land use category. It is also possible that some zoning districts might be consistent with more than one land use designation.

Achieving consistency between land use and zoning is required by State Statutes. This generally occurs when a community is considering a proposed zoning change. The decision to approve a zoning change must be based on the adopted comprehensive plan, and specifically, the future land use map. Generally, if the requested zoning is consistent with the land use designation on the property it should be approved, unless unique circumstances indicated the rezoning would negatively impact surrounding properties or the community. If a rezoning request is not consist with the land use designation, the community should consider denying the rezoning request.

In situations where a rezoning request is not consistent with the land use designation - but the community believes the requested zoning is appropriate in the specific location and would benefit the community - the zoning change can be approved, however, the land use map should be amended accordingly to establish land use and zoning consistency. The process for amending the land use map is discussed in greater detail in the Implementation Element.

4. Transportation Element

Most residents in Harrison are comfortable with current transportation conditions in the Town. Residents seek to maintain road conditions over time, and look for ways to improve safety and provide the most cost-effective services.

Goal 1: Maintain and improve Town roads.

- Objective: To continue annual review of roads, bridges, culverts and any safety issues to determine annual repairs.
- Objective: To find adequate sources of revenue to fund needed improvements.
- Objective: To develop criteria to guide decisionmaking on when (and if) roads should be paved.

Policies:

• The Town of Harrison supports programs to help maintain and improve the condition of Town roads.

Strategies/Actions:

- Meet annually to prioritize and program road repair and improvements.
- Initiate talks with the County and the State about sources on revenue to fund road improvements.

Goal 2: Improve traffic safety within the Town.

 Objective: Consider developing criteria to aid in the review of culvert/driveway access issues.

Policies:

• The Town of Harrison will work with many parties to make sure that traffic safety is improved within the Town.

Strategies/Actions:

 Consider development of a driveway and culvert permitting process that examines various safety and road management issues

Goal 3: Provide the most cost-efficient, effective services to residents in areas such as road maintenance, snowplowing, or other services.

- Objective: To explore opportunities to work with adjacent communities where there are potential cost savings in service delivery.
- Objective: To coordinate timing of road maintenance with adjacent communities, to determine if services can be shared for potential cost savings.

Policies:

• The Town of Harrison supports working with adjacent communities to provide cost savings in road maintenance and services.

Strategies/Actions:

- Initiate meetings with surrounding Towns and the County to discuss road maintenance schedules.
- Initiate meetings with surrounding communities to discuss snow-plowing and other service activities.
- Maintain the plan for any shared road maintenance, including detailed responsibilities and cost-sharing.

Road Improvements

The Wisconsin Department of Transportation requires all incorporated communities to prepare a Pavement Management Plan using a pavement rating system for their local roads. These plans were to be submitted for review by December 2001. The data from these plans is intended to provide the foundation for the Wisconsin Information System for Local Roads (WISLR), which is a computer resource that will enable communities and the State to begin to assess Wisconsin's local roadway system.

The PASER system, which was designed by the Transportation Information Center of the University of Wisconsin-Madison, is the rating system used most by Wisconsin communities. PASER rates road surfaces on a scale of 1 to 10.

This scale is broken down as follows:

• "1" and "2" = very poor condition

- "3" = poor condition
- "4" and "5" = fair condition
- "6" and "7" = good condition
- "8" = very good condition
- "9" and "10" = excellent condition

In addition to its use in the new WISLR, the rating system gives communities a detailed assessment of the appropriate maintenance method for each road segment under their jurisdiction. This assessment is then incorporated into the community's Pavement Management Plan. WISLR ratings and surface types in the Town of Harrison are shown on Figures 4-1 and 4-2, and summarized in Table 4-1.

Table 4-1: Summary of Pavement Conditions

Surface Type Code (miles)							
				Cold Mix	Cold Mix	Cold Mix	
	Graded			Asphalt	Resurfacing	Resurfacing	
Unimproved	Earth	Gravel	Wearing	on	with < 7"	with > 7"	
Road	Road	Road	Surface	Concrete	Base	Base	
		7.22					
			1	1			
	Cold Mix	Hot Mix					
Cold Mix	Asphalt	Asphalt		Hot Mix		Brick or	
Asphalt	Base >	on	Hot Mix	Asphalt	Concrete	Block	
Base < 7"	7"	Concrete	Resurfacing	Pavement	Pavement	Pavement	
6.50	15.06		4.49				

Surface Condition Rating - WISLR Data						
No Data	Failed	Poor	Fair	Good	Very Good	Excellent
			7.56	13.38	12.33	

Source: WDOT (WISLR), 8/10/04

The roads that display a surface rating of "Good" or better will only require minimal preventative maintenance to promote safe travel conditions. Further information is necessary for those roads that display no surface rating data. This data collection effort will help ensure safe travel conditions along those routes.

Paving Gravel Roads – Approximately 7 miles of roads within the Town remain unpaved. When paving gravel roads, there are many factors that should be taken into consideration. Appendix F outlines some general guidelines to help the Town decide if or when to pave gravel roads.

5. Utilities Element

The Town of Harrison has identified goals and actions to address the issue of water supply and protecting water resources.

Goal 1: Ensure a safe, sufficient supply of potable water.

 Objective: To work with surrounding communities to protect the health of the Springbrook Creek Watershed.

Policies:

• The Town of Harrison strongly supports the protection of water resources.

Strategies/Actions:

• Participate in discussions with Marathon and Langlade Counties about the Springbrook Creek Watershed.

Goal 2: Ensure that groundwater has not been polluted by agricultural run-off or other pollutants.

• Objective: Encourage residents to conduct regular well testing to ensure that water is safe.

Policies:

• The Town of Harrison supports actions to ensure that groundwater has not been polluted.

Strategies/Actions:

 Educate residents on well testing through brochures or speakers on the subject. Utilize the resources of the WDNR and UW-Extension for this information.

Goal 3: Plan for efficient on-site sanitary waste disposal systems.

- Objective: To ensure that lot sizes are adequate for private waste disposal systems.
- Objective: To ensure that waste disposal systems will not have negative effects on wetlands, rivers, or streams in Harrison.

Policies:

• The Town of Harrison encourages appropriate and efficient use of on-site sanitary waste disposal systems.

Strategies/Actions:

• Consider developing and adopting a minimum lot size relative to a certain size of waste disposal systems.

6. Housing Element

Housing options in the Town of Harrison are currently limited to single-family dwellings, including mobile homes. Residents believe that single-family housing is the best option for the Town. At this time, a need for multi-family housing is not anticipated; however the Town's goals reflect an interest in staying on top of demographic trends. The Town would also like to regulate mobile homes to provide consistency.

Goal 1: Ensure the safety of mobile home units.

- Objective: Maintain current practice of inspecting mobile homes under same criteria as new development.
- Objective: To ensure that mobile homes have identified addresses and fire numbers for emergency service provision.

Policies:

• The Town of Harrison encourages the safety of mobile home units

Strategies/Actions:

- Establish review criteria for mobile home regulations to see if it needs to be updated.
- Keep a database of all addresses and fire numbers. Work on identifying the information of those that aren't listed.
- Insert a flyer or letter in the tax statement informing residents that fire numbers are available.

• Reiterate these actions in the County's Hazard Mitigation Plan

Goal 2: Ensure that residents have access to a variety of housing options.

- Objective: Identify needs for different types of housing, i.e. senior housing, multi-family, etc.
- Objective: Consider options for the old Air Force base area.

Policies:

• The Town of Harrison supports the dissemination of housing information to local residents.

Strategies/Actions:

- Review census and anticipated growth information, and identify needs for special housing types.
- Summarize housing information and disseminate to the public.
- Maintain contact with current owner of the old Air Force base to determine future use of homes.

7. Cultural Resources Element

There are few previously identified historic properties in the Town of Harrison, however the County-wide survey has not been updated since 1977. The Town wishes to cooperate with any future studies done by Marathon County.

Goal 1: Recognize historically significant buildings and sites.

- Objective: To work with the County Historical Society or others to identify historic resources so they may be considered in future planning.
- Objective: To ensure that any known cemeteries, human burials or archaeological sites are protected from encroachment by roads or any development activities.

Policies:

• The Town of Harrison supports the preservation of historically significant buildings and sites.

Strategies/Actions:

- Work with the County Historical Society and State Historic Preservation Office to determine if structures are eligible for listing on the National Register of Historic Places.
- Identify locations of historic buildings, cemeteries/burials, and archaeological sites, and make information readily available for project planning and development review.

8. Community Facilities Element

The Town of Harrison receives most of its community services through surrounding communities. There are no schools, libraries, hospitals or childcare facilities in the Town. Fire and ambulance service is provided by the Village of Birnamwood. Harrison's goals reflect the desire to support existing facilities and ensure the most cost-effective service is being provided.

Goal 1: Support and maintain existing community facilities.

• Objective: To maintain the Town Hall as a seat of local government and community meeting hall.

Policies:

• The Town of Harrison recognizes the importance of the Town Hall as a gathering place for the community and as a government center of the Town.

Strategies/Actions:

• Identify necessary repairs and allocate funds to maintain and/or improve the Town Hall on a regular basis.

Goal 2: Ensure adequate fire and emergency service provision.

 Objective: To maintain current contracts for ambulance service and review if community needs or response times change.

Policies:

• The Town of Harrison recognizes the importance of adequate fire and emergency service provisions.

Strategies/Actions:

 Regularly record, review, and audit emergency response times and service calls.

9. Parks Element

The Town of Harrison does not own or operate any public parks, and does not see a need to do so. The County-owned Harrison-Hewitt Forest Unit and Bitzke Bird Sanctuary provide recreational opportunities for the Town.

Goal 1: Support the Marathon County park and forest system that serves Harrison residents.

- Objective: To encourage appropriate funding for maintenance and improvements of local Marathon County parks and forests.
- Objective: To work with Marathon County to ensure appropriate use of the Harrison-Hewitt Forest Unit and Bitzke Bird Sanctuary.

Policies:

• The Town of Harrison recognizes the County and local park systems as an important asset to the community.

Strategies/Actions:

• Participate in conversations with the County to learn of plans for improvements or maintenance to the Harrison-Hewitt Forest Unit and Bitzke Bird Sanctuary.

10. Economic Development Element

Employment opportunities within the Town of Harrison are limited to mostly agricultural employment, as there is limited commercial and industrial use within the Town. As overall agricultural employment is anticipated to decrease in Marathon County overall, the Town of Harrison is expected to see a decrease in overall employment through the year 2030. The Town recognizes the importance of agriculture to its economy, and has set forth goals and actions to maintain a viable agricultural base.

Goal 1: Strengthen the viability of the local agricultural economy to ensure that existing farms are able to remain in agriculture as long as they choose.

- Objective: Encourage residential development to locate in areas away from large blocks of farmland.
- Objective: To support the creation of niche markets or other opportunities that will help farmers to stay in business.
- Objective: To encourage the use of agricultural Best Management Practices (BMPs) to increase productivity of farmland.

Policies:

• The Town of Harrison recognizes agriculture as a prime economic force in the Town

Strategies/Actions:

- Consider regulations or incentives for exclusive agricultural use of land.
- Hold meetings to discuss guidelines or ordinances to guide residential development to certain areas, away from active farmland.
- Work with UW-Extension, Marathon County, and the NRCS to implement farmland conservation practices, including BMPs.

11. Intergovernmental Cooperation Element

As outlined in the Community Facilities Element, the Town of Harrison shares most of its services with other communities. For this reason, it is important for Harrison to maintain good relations with those communities, while still striving for the most cost-effective solutions.

Goal 1: Provide the most cost-efficient, effective services to residents in areas such as road maintenance, snowplowing, or other services.

 Objective: To explore opportunities to work with adjacent communities where there are potential cost savings in service delivery.

Policies:

• The Town of Harrison supports working with adjacent communities to provide cost savings in road maintenance and services.

Strategies/Actions:

- Initiate meetings with surrounding communities to discuss snow-plowing and other service activities.
- Develop a plan for any shared road maintenance, including detailed responsibilities and cost-sharing.

Goal 2: Encourage participation by Town officials and residents in all levels of government.

- Objective: To encourage local officials to participate in county and state government activities and organizations.
- Objective: To encourage regular participation and feedback from residents through surveys, informational public meetings, newsletters or other activities.

Policies:

 The Town of Harrison encourages local officials and residents to participate in local planning activities and organizations.

Strategies/Actions:

- Designate a main contact person who will be responsible for organizing and/or distributing public information materials.
- Ask for progress reports from the County and State on specific issues for which they are responsible.

12. Implementation Element

The primary reason a community prepares a comprehensive plan is to establish a framework to influence decisions regarding management of growth and regulation of development to maintain the desired community character, and to set priorities for public expenditures. To be effective, this plan should be actively used as a tool to guide decisions concerning:

- The implementation and enforcement of regulatory ordinances based on the goals and objectives identified in this plan.
- The development of programs and support systems that further the goals and objectives set forth in this plan.
- The implementation of specific community improvements as identified in the comprehensive plan.
- The establishment and support of a continued planning process providing for periodic review and updates to this plan and other land use control measures.

Implementation Tools

Having the appropriate tools to implement the recommendations in this comprehensive plan is critical. The most common implementation tools are the Town official controls or regulatory codes. In particular, the zoning ordinance and subdivision (or land division) regulations comprise the principal regulatory devices used to protect existing development and guide future growth and development as identified in this comprehensive plan. There are also non-regulatory approaches to implementing the comprehensive plan; these generally involve decisions about how the community will spend its limited funding resources on capital improvements and staffing.

The State planning law requires that by January 1, 2010 certain programs and/or actions that affect land use must be consistent with the locally adopted comprehensive plan. To meet this deadline, the Town of Harrison should update related ordinances on or before the year 2010. The Town Board officially adopts these regulatory and land use control measures as ordinances (or as revisions to the existing ordinances).

• Zoning Ordinance and Map: Zoning is used to manage and control how land is used and developed. Zoning ordinances typically establish detailed regulations concerning how land may be developed, including setbacks, the density or intensity of development, and the height and bulk of building and other structures. The general purpose of zoning is to minimize undesirable side effects resulting from development by segregating and/or buffering incompatible uses and by maintaining standards that ensure development will not negatively impact the community's character or environment.

The Town of Harrison does not have a zoning code. It does, however, have some ordinances in place to regulate uses. While these regulations do not need to directly match at the time the future land use map is adopted, the intent is that the future land use map will serve as a guide indicating how the property should eventually be used. Therefore, indiscriminate land use changes may result in weakening of the comprehensive plan.

However, there may be situations where changing the existing ordinances makes sense and is in the best interest of the community. If changing the ordinances would result in a conflict with the future land use map, the land use map

should also be changed. However, the future land use map should only be changed if it does not accurately reflect the community's desired land use pattern.

As discussed below, the comprehensive plan (and future land use map) should be periodically reviewed and updated to adjust for unforeseen changes or events that were not considered at the time the initial plan and future land use map were developed.

The Town Board makes the final decisions regarding changes to the content of existing ordinances and the future land use map. These decisions are preceded by public hearings and recommendations of the plan commission, or other designated committee.

- Subdivision (Land Division) Ordinance: Subdivision regulations serve as an important function by ensuring the orderly development of unplatted and/or undeveloped land. These regulations may set forth reasonable regulations for lot sizes, road access, street design, public utilities, storm water drainage, parks and open space, and other improvements necessary to ensure that new development will be an asset. The Board makes the final decisions on the content of the subdivision ordinance. These decisions are preceded by public hearings and recommendations of the plan commission, or other designated committee.
- Capital Improvement Plan (CIP): This is an ongoing financial planning program that allows local communities to plan ahead for capital expenditures and minimize unplanned expenses. A capital improvement plan consists of a list of proposed projects according to a schedule of

priorities over a four-to-six year period. It identifies needed public improvements, estimates their costs, and identifies financing methods and sources. Public improvements or expenditures typically considered in a CIP include:

- Public buildings (i.e., fire and police stations)
- Park and trail acquisition and development
- Roads and highways (maintenance and new construction/paving)
- Utility system construction/expansion, treatment plants, water towers, wells, etc.
- Joint school and other community development projects
- Fire and police protection equipment

A CIP is simply a method of planning for and scheduling expenditures for public improvements over a period of several years in order to maximize the use of limited public funds. Each year the CIP should be reviewed and extended one year to compensate for the previous year that was completed. This keeps the improvement program current and allows for modifications to meet the community's changing needs.

The preparation of a CIP is normally a joint responsibility between the Town Board, plan commission, staff, and citizen commissions. The preparation of a capital improvement program may vary from community to community depending on local preferences, the local form of government and available staff. The proposed capital improvement plan should be reviewed in light of the priorities outlined in the comprehensive plan.

Plan Adoption, Monitoring, and Amendments

While this comprehensive plan is intended to provide a long-term framework to guide development and public spending decisions, it must also respond to the continuous stream of changes that occur in the community and/or region that may not have been foreseen when the plan was initially adopted. It is appropriate that some elements of the plan are rarely amended while others are subject to updating on a more regular basis. Plan maps should also be updated periodically. In general, key maps, such as the future land use map, should be reviewed annually to make sure they are still current.

Plan Adoption: The first step in implementing this plan involves adoption of the plan by local officials. The formal review and adoption process involves plan review by the Plan Commission (or other planning committee) who must adopt the plan by resolution of majority vote. The Plan Commission recommendation is forwarded to the Town Board who must adopt the plan by ordinance (of majority vote). A public hearing is required to allow public comment on the ordinance prior to Board final action to adopt the plan. Adoption formalizes the plan document as the framework to guide local development decisions over the next 20 years. The adopted plan should also be recognized as a tool for communicating the community's land use policy and goals and objectives regarding coordination of growth and development.

Plan Use, Monitoring and Evaluation: The adopted plan should be used as a tool by the Town of Harrison when making land use and development decisions. Decisions concerning private development proposals, public investments, regulations, incentives, and other actions should be consistent with the

goals, objectives, policies, and recommendations outlined in this plan.

Although this plan describes policies and actions for future implementation, it is impossible to predict the exact future condition of Harrison. As such, the goals, objectives, and actions in this plan should be monitored on a regular basis to maintain concurrence with changing conditions and respond to unanticipated events.

This plan should be evaluated at least every 5 years, and updated at least every 10 years. Members of the Town Board, Plan Commission, and any other local decision-making bodies should periodically review the plan and identify areas that might need to be updated. The evaluation should involve first reviewing the goals and objectives to ensure they are still relevant and reflect current community desires. Then the strategies and actions should be reviewed and refined to eliminate completed tasks and identify new approaches if appropriate. The evaluation should also include an updated timetable of actions to clarify priorities.

Plan Amendments: The Town of Harrison Comprehensive Plan may be amended at any time by the Town Board following the same process described above for initial Plan adoption, regardless of how minor the proposed amendment or change. Amendments may be appropriate throughout the lifecycle of the plan, particularly if new issues emerge or trends change. These amendments will typically consist of minor changes to the plan text or maps. Large-scale changes or frequent amendments to meet individual development proposals should be avoided or the plan loses integrity. A list of criteria to determine the merits of proposed amendments is included in Table 12-1.

Table 12-1: Criteria to Consider When Reviewing Plan Changes

- **1.** The change is consistent with the overall goals and objectives of the Town of Harrison Comprehensive Plan.
- **2.** The change does not create an adverse impact on public facilities and services that cannot be mitigated.
- **3.** Development resulting from the change does not create an undue impact on surrounding properties. Such development should be consistent with the physical character of the surrounding neighborhood or would upgrade and improve its viability.
- **4.** The change allows a more viable transition to the planned uses on adjacent properties than the current land use.
- **5.** The change does not have a significant adverse impact on the natural environment including trees, slopes and groundwater, or the impact could be mitigated by improvements on the site or in the same vicinity.
- **6.** There is a change in Town actions or neighborhood characteristics that would justify a change.
- **7.** The change corrects an error made in the original plan.
- **8.** There is a community or regional need identified in the comprehensive plan for the proposed land use or service.
- **9.** The change does not adversely impact any landmarks or other historically significant structures or properties unless mitigated through relocation, commemoration or dedication.

As noted above, proposed amendments must be reviewed by the Plan Commission prior to final action and adoption by the Town Board. The public should be notified of proposed Plan changes and allowed an opportunity for review and comment. For major amendments, the Town might consider soliciting public opinion through surveys and/or community meetings prior to the official public hearing.

Plan Updates: According to the State comprehensive planning law, comprehensive plans must be updated at least once every ten years. As opposed to the more routine amendments described above, plan updates often involve re-writing of whole sections of the plan document and significant changes to supporting maps. A plan update should include a thorough examination of the community's goals and objectives based on an analysis of current growth trends and major changes that have occurred since the plan was initially adopted or last amended. Plan updates must be formally adopted following the same procedure described above for initial plan adoption.

Consistency Among Plan Elements

The State of Wisconsin planning legislation requires that the Implementation Element describe how each of the required elements will be integrated and made consistent with the other elements of the plan. Since the Town of Harrison completed all planning elements simultaneously, no known inconsistencies exist. It is noted that some overlap naturally exists between the nine plan elements. Where deemed appropriate, goals, objectives, and actions have been repeated under all applicable elements to ensure they do not get "lost".

This Comprehensive Plan also references previous and concurrent related planning efforts (e.g, LRTP, Groundwater Study) to ensure they are considered in planning decisions in conjunction with the recommendations of this Plan. Summary descriptions of recent and concurrent planning efforts are provided in the *Conditions and Issues Report*.

Town of Harrison

Recommendations from other plans have been summarized and incorporated in this plan as deemed appropriate, to foster coordination and consistency between plans. Some related plans, such as the *Marathon County Hazard Mitigation Plan*, are incorporated by reference in this plan and are essentially considered appendices of this plan even though they are separate documents.

Action Plan

The table below provides a detailed list of major actions to complete in order to implement this comprehensive plan. It compiles the major short, mid, and long-term priorities described in each of the nine plan elements. It also identifies the parties that will play key roles in implementing the actions.

Table 12-2 is intended for use by local officials in setting priorities for capital budgeting. It is expected that this table will be reviewed annually and revised, as necessary, to respond to changing priorities, financial limitations, and other unforeseen events. It should be noted that many of the actions require considerable cooperation with others, including the citizens of Harrison, staff, and other local/county/state agencies.

Priority ranking is defined as follows:

- Immediate = ASAP
- Short-term = 1-4 years
- Mid-term = 5-9 years
- Long-term = 10+ years
- On-going = Current activities that should continue indefinitely

Table 12-2: Implementation Plan Actions

Action	Priority
Natural Resources	
Remain up-to-date on any rule or regulation changes	Ongoing
Distribute information on good forest practices to local forest land owners.	Short-term
Participate in discussions with Marathon and Langlade Counties about the Springbrook Creek Watershed.	Immediate
Encourage participation in farmland conservation practices, including BMPs.	Ongoing
Land Use	
Consider setting and adopting guidelines for minimum lot size.	Short-term
Encourage higher density development to areas that would not greatly compromise rural character.	Long-term
Identify types of development which are preferred to preserve rural character (i.e. horse riding stables)	Short-term
Encourage local operators to participate in regionally-based agricultural forums and programs.	Short-term
Research exclusive agricultural zoning.	Immediate
Hold meetings with residents to discuss and consider guidelines or ordinances to guide residential development to certain areas, away from active farmland.	Short-term
Inventory mobile homes in the Town, and decide if an ordinance is necessary.	Short-term
Address the problem of hunting trailers, campers, etc. that are not registered or lived in year-round.	Short-term
Consider an ordinance on mobile homes, if applicable.	Short-term
Compile a list of the types of things that are currently issues in Harrison and should be governed via ordinance.	Immediate
Consider developing and adopting an ordinance on old buildings, abandoned junk, etc.	Short-term
Develop hazardous materials/toxic waste ordinance.	Short-term
Transportation	
Meet annually to prioritize and program road repair and improvements.	Ongoing
Initiate talks with the County and the State about sources on revenue to fund road improvements.	Ongoing
Consider development of a driveway and culvert permitting process that examines various safety and road management issues.	Short-term
Initiate meetings with surrounding Towns and the County to discuss road maintenance schedules.	Immediate
Initiate meetings with surrounding communities to discuss snow-plowing and other service activities.	Immediate
Maintain the plan for any shared road maintenance, including detailed responsibilities and cost-sharing.	Ongoing

Utilities	
Participate in discussions with Marathon and Langlade Counties about the Springbrook Creek Watershed.	Immediate
Educate residents on well testing through brochures or speakers on the subject.	Short-term
Consider developing and adopting a minimum lot size relative to a certain size of waste disposal systems.	Short-term
Housing	
Establish review criteria for mobile home regulations to see if it needs to be updated.	Short-term
Keep a database of all addresses and fire numbers. Work on identifying the information of those that aren't listed.	Ongoing
Insert a flyer or letter in the tax statement informing residents that fire numbers are available.	Immediate
Review census and anticipated growth information, and identify needs for special housing types.	Mid-term
Summarize housing information and disseminate to the public.	Ongoing
Maintain contact with current owner of the old Air Force base to determine future use of homes.	Ongoing
Cultural Resources	
Work with the County Historical Society and State Historic Preservation Office to determine if structures are eligible	Long-term
for listing on the National Register of Historic Places.	
Identify locations of historic buildings, cemeteries/burials, and archaeological sites, and make information readily	Long-term
available for project planning and development review.	
Community Facilities	
Identify necessary repairs and allocate funds to maintain and/or improve the Town Hall on a regular basis.	Ongoing
Regularly record, review, and audit emergency response times and service calls.	Ongoing
Parks and Recreation	
Participate in conversations with the County to learn of plans for improvements or maintenance to the Harrison-Hewitt	Ongoing
Forest Unit and Bitzke Bird Sanctuary.	
Economic Development	
Consider regulations or incentives for exclusive agricultural use of land.	Short-term
Hold meetings with residents to discuss and consider guidelines or ordinances to guide residential development to	Short-term
certain areas, away from active farmland.	
Encourage participation in farmland conservation practices, including BMPs.	Ongoing

Town of Harrison

Intergovernmental Cooperation	
Initiate meetings with surrounding communities to discuss snow-plowing and other service activities.	Immediate
Develop a plan for any shared road maintenance, including detailed responsibilities and cost-sharing.	Immediate
Designate a main contact person who will be responsible for organizing and/or distributing public information	Immediate
materials.	
Ask for progress reports from the County and State on specific issues for which they are responsible.	Ongoing

Appendix A

State Comprehensive Planning Goals

Wisconsin Statutes 66.1001 requires that the goals, objectives, policies, and programs of local governmental units be consistent with the fourteen planning goals in the State planning legislation, which include:

- 1. Promote the redevelopment of lands with existing infrastructure and public services and the maintenance and rehabilitation of existing residential, commercial, and industrial structures.
- 2. Encourage neighborhood designs that support a range of transportation choices.
- 3. Protect natural areas, including wetlands, wildlife habitats, lakes and woodlands, open spaces, and groundwater resources
- 4. Protect economically productive areas, including farmland and forests
- 5. Encourage land uses, densities, and regulations that promote efficient development patterns and relatively low municipal, state government, and utility costs.
- 6. Preserve cultural, historic, and archaeological sites.
- 7. Encourage coordination and cooperation among nearby units of government.

- 8. Build community identity by revitalizing main streets and enforcing design standards.
- 9. Provide an adequate supply of affordable housing for all income levels throughout each community.
- Provide adequate infrastructure and public services and a supply of developable land to meet existing and future market demand for residential, commercial, and industrial uses.
- 11. Promote the expansion or stabilization of the current economic base and the creation of a range of employment opportunities at the state, regional, and local levels.
- 12. Balance individual property rights with community interests and goals.
- 13. Plan and develop land uses that create or preserve varied and unique urban and rural communities.
- 14. Provide an integrated, efficient, and economical transportation system that provides mobility, convenience, and safety, which meets the needs of all citizens including transit-dependent and disabled.

Appendix B

Marathon County Guiding Principles

Participants in the Marathon County comprehensive planning process worked cooperatively, through several meetings with sub-area groups, to develop a set of guiding principles that describe broad characteristics of a desired future for their communities and Marathon County. The guiding principles consist of a series of statements that reflect shared values and priorities regarding future growth and development. These principles were used to provide a general frame of reference for developing local goals and objectives. The ten guiding principles include:

- **1. Respect Local Governance -** Planning in Marathon County should build on local town, village and city government as a system that is unique, has served residents well, and is a strong component of local identity.
- 2. Preserve Working Agriculture Agriculture has been central to the culture and economy of Marathon County for over 100 years. Farming has been a way of life for generations of county residents and is fundamental to both community and individual identity. Efforts such as protecting prime farmland from development, exploring niche markets, and supporting cooperative practices can be implemented at the local level to help maintain and preserve working agriculture.
- **3. Maintain a Sense of Place -** As Marathon County's population grows and changes, communities will need to ensure that important physical features, buildings, and

landscapes that exemplify their local identity are retained. These features provide a sense of heritage and continuity that contribute to a community's identity and sense of place.

- **4. Preserve Rural Character -** Shifts in the farm economy and urban expansion are altering the County's rural landscape characterized by working farms, woodlands, rolling hills, marsh areas, and plentiful water bodies. As open spaces, farms, and woodlands are being lost or fragmented by development, Marathon County communities will need to make some important choices in order to preserve the qualities and character of the rural landscape.
- **5. Safeguard Natural Resources -** Marathon County is graced with abundant natural resources including numerous rivers, wetlands, forests, and wildlife. Careful stewardship of natural resources is essential to protect against fragmentation and degradation and ensure these resources continue to contribute to the ecology, character, quality of life, and economy of Marathon County into the future.
- **6. Foster Managed Growth and Coordinated Development -** Managing growth is important to ensure that no area is overwhelmed by development, land use conflicts are minimized, and development occurs in a quality manner that minimizes impacts on natural resources. Managing growth requires coordination of land uses and infrastructure, within and between communities, and recognizes that high quality growth in any one community will benefit surrounding communities as well.

- 7. Cost-Effective and Efficient Provision of Public Services Marathon County residents are clear in their desire to keep local taxes reasonable. One of the most effective means to keep taxes under control is to ensure that public services are efficiently organized to provide the best service possible for the taxpayer dollar. Communities have a responsibility to provide the highest level of services possible given limited resources. To ensure cost-effective public services, local communities may want to consider options such as greater coordination, cost-sharing and consolidation if such efforts improve access to services and service delivery.
- **8. Build Social and Civic Capacity -** Marathon County residents take pride in their long tradition of local government. Ideally, participation in community affairs embraces and builds upon the diversity of cultures and values present in the community. Providing opportunities to share ideas and participate in community decisionmaking is essential to building and maintaining a strong sense of local community.
- 9. Support Rural Service Centers Rural centers are part of a web of services that support residents, give local identity and are part of the rural way of life that residents want to preserve. Most villages in the County grew as centers to provide goods and services for nearby farmers, but have evolved as rural activity centers including the local school, churches, and some goods and services. Just as city neighborhoods are stronger with nearby commercial services, rural areas are stronger with nearby villages that provide a central meeting place to connect with other rural residents. As more people move to rural areas, it makes

- sense to concentrate new development in areas that can efficiently provide utilities and other services.
- base allows a community to deliver needed services to residents while helping to keep taxes low. Erosion of local tax base is a concern for many communities, often as a result of annexation, increases in public land ownership, and shifting economic markets. Efforts to attract additional revenue generators and coordinate with adjacent municipalities can help communities protect and preserve their local tax base

Appendix C

Ordinances and Resolutions for Adoption

Appendix D

Public Participation Plan

Appendix E – Bibliography of Planning Related Studies, Regulations and Resources

Natural Resources

- Marathon County Land and Water Resource Management Plan (LWRMP) In 2005, Marathon County adopted the LWRMP in accordance with Wisconsin Statutes (Wisconsin Act 27, Chapter 92.10). The primary intent of this plan is to identify a vision for natural resource management in Marathon County, to outline strategies to protect the quality and quantity of soil and water resources and to ensure compliance of state agricultural performance standards and local ordinances.
- Marathon County 2001 Groundwater Protection Guide This guide is an extension of the efforts established with adoption of the *Marathon County Groundwater Plan* in 1988. It is intended to guide local and County officials in setting policy to safeguard groundwater resources. It also serves as a resource of information about groundwater and other natural resources and recommends strategies to address issues related to groundwater protection.
- Marathon County Forest Ten-Year Comprehensive Land Use Plan, 2006 2015
 This plan includes recommendations to manage and protect the county forest on a sustainable basis for ecological, economic, educational, recreational, and research needs of present and future generations. It provides substantial information on existing forest resources and information regarding the roles of the various agencies and regulatory framework related to forest management. The Marathon County Board of Supervisors will consider approval of the plan in September 2005 and the DNR will do so in December 2005.
- **Soil Survey for Marathon County**, published in 1990 by the U.S. Soil Conservation Service and updated in 2003.
- **Marathon County Cropland Evaluation System (CES)** This system rates soils on their ability to produce food, feed, forage, and fiber crops. The system is non-biased, defendable, and can be consistently applied.
- Farm Preservation Program is an income tax credit program administered by the Wisconsin Department of Agriculture (WDA), Trade & Consumer Protection. The goals of the program are twofold: to preserve Wisconsin farmland by means of local land use planning and soil conservation practices and to provide property tax relief to farmland owners. Landowners keeping land in agricultural use can claim a credit on their state income tax by obtaining a zoning certificate (if the land is zoned "exclusive agriculture") or by signing a contract with the State.
- *Marathon County Farmland Preservation Plan,* adopted in 1982, eight towns have adopted Exclusive Agriculture Zoning. These include: Stettin, Marathon, Mosinee, Hull, Brighton, Eau Pleine, McMillan, and Day. The intent of this zoning classification is to minimize fragmentation of farmland by imposing a minimum lot size of 35 acres. In order to adopt Exclusive Agriculture zoning, a municipality must be enrolled in the Farmland Preservation Program.

- *Marathon County Non-metallic Mining Ordinance,* adopted in 1989 requires reclamation of these sites to a purposeful and acceptable landscape appearance and use. The program is administered by the County DCPZ and includes incentives to reclaim abandoned excavations.
- **Natural Heritage Inventory (NHI) maps** provided by the State of Wisconsin include general information on endangered resources are appropriate for general planning and assessment purposes only. The locations of endangered resources that are not considered vulnerable to collection are identified at the town level in Marathon County. Locations of more vulnerable species are generalized to minimize the potential for collection or disruption.

Land Use

- *General Code of Ordinances for Marathon County* includes several sections that specifically address land use and various development activities. Some of these include:
 - Chapter 11 (Animal Waste and Manure Management) includes regulations to prevent animal waste material from entering water bodies through issuance of construction permits for new and modified manure storage facilities. The ordinance also regulates the closure of abandoned manure storage facilities, mismanaged manure storage facilities and the application of manure onto cropland.
 - Chapter 17 (Zoning Code) includes development restrictions in shoreland and wetland areas and a wellhead protection overlay district that encompasses recharge areas for municipal water supply wells. Local communities in Marathon County may adopt their own zoning code, adopt the County zoning code, or choose to have no zoning.
 - Chapter 16 (County Forests) prescribes rules and regulations for the administration of County forests in cooperation with the Department of Natural Resources. Provides for the establishment, protection, development and management of County forests to provide sustained yield of forest products for commercial use and the associated benefits of soil and water conservation, scenic and recreational values, fish and game resources, multiple-use purposes and related uses.
 - Chapter 18 (Land Division) The County's land division regulations apply in all unincorporated areas of the County. However, where a town has land division regulations that are more restrictive than the County's, the local regulations apply. Chapter 18 includes regulations for minimum lot sizes, street design and access requirements, land dedication, surface drainage and erosion control.
 - Chapter 19 (Parks and Recreation) includes regulations regarding use and management of all lands and water previously and subsequently acquired by the County for park or recreational purposes or placed under the jurisdiction of the Park Commission and including without limitation, parks, beaches, swimming pools and privately owned lands, the use of which has been granted or leased to the County for park, recreational or like public purposes.
 - Chapter 21 (Non-metallic Mining) includes requirements for reclamation that minimize impacts on groundwater quantity and quality.

- *Marathon County Hazard Mitigation Plan (2005)* This plan, prepared in accordance with Federal Emergency Management Administration (FEMA) directives of the Disaster Mitigation Act of 2000, outlines strategies for pre-disaster planning and hazard mitigation. The intent is to minimize the effects of potential disasters and help streamline the administration of disaster relief.
- Forest Crop Law (FCL) and Managed Forest Law (MFL) the FCL and the MFL programs were developed to encourage better forest management and provide tax relief to woodland owners. Land set aside under the FCL (which was combined into the MFL in 1986) required at least 40 acres in one quarter-quarter section, set aside under a 25- or 50-year contract, and public access for hunting and fishing activities. The MFL was enacted in 1985 and requires at least 10 acres of contiguous forest land. Landowners may close to the public up to 80 acres of their forest lands set aside under MFL. The remaining program acres must be open to public access for hunting, fishing, hiking, sight-seeing and cross-country skiing. Landowners must choose a 25- or 50-year contract. The landowner pays an Acreage Share Amount as part of their tax bill in lieu of taxes.

Transportation

Studies related to transportation are listed below under the jurisdiction who prepared the plan.

- 1. Marathon County (Conservation, Planning, and Zoning Department (CPZ) and/or Highway Department) is responsible for completing/updating/assisting with several plans/policies/studies relating to transportation including:
 - State Trunk Highway 29 Corridor Land Use Review (1997)
 - Recommends actions or measures local communities can make to protect areas within the STH 29 corridor from the negative impacts related to unplanned growth.
 - Marathon County Functional / Jurisdictional Highway Classification Study (1988)
 - o Identifies and groups classes of roadways that provide similar levels of service. The plan recommended that the unit of government having the greatest basic interest in the roadway's function would carry out the operation, maintenance, and improvement of the classified roadways.
 - Marathon County Program Evaluation Team (P.E.T.) Transportation Services Recommendations (2002)
 - These recommendations, under direction of the Marathon County Human Services Committee, are intended to address issues related to specialized transportation services provided by various Marathon County Departments, including issues related to overlapping services.
 - Bicycle & Pedestrian Plan for the Non-Urbanized Area of Marathon County, Wisconsin (1996)
 - o Identifies suggested bicycle routes in Marathon County outside the Wausau area. Routes were based on traffic counts and condition of pavement. Formal action has not occurred to adopt these as officially designated bicycle routes.
 - Marathon County Paratransit Study (2001)
 - o Studied paratransit services within the Wausau area provided primarily by Wausau Area Transit System Plus (WATS+). Identified issues with regard to

providing demand responsive services for persons in the Greater Wausau Area and Marathon County. Provides a plan for enhancing paratransit services over a five-year period primarily geared toward controlling costs and increasing efficiency and trip sharing on the WATS+ system.

• County Trunk Highway Access-Driveway Policy

- Available through the Marathon County Highway Department, addresses the requirements regarding culverts, access width, slope, visibility and spacing.
 Marathon County issues driveway permits and implements access restrictions on all properties fronting a lettered county road.
- **2. Wausau Metropolitan Area Planning Commission (MPO) -** The MPO is responsible for completing/updating/assisting with several plans relating to transportation in the metropolitan area including:
 - Long Range Transportation Plan (LRTP) for the Wausau Metropolitan Area (1996)
 - The LRTP addresses needed improvements to the transportation system serving the Wausau urbanized area. LRTP recommendations are based on the relationship between land use policy and transportation facilities and services, including roadways, transit, bikeways, pedestrian ways, air, inter-city bus, and the movement of goods by air, rail, and truck. The 1996 plan was reaffirmed in 2001 and will be updated by 2005.
 - Local Arterial Circulation Plan (2000)
 - o The purpose of this plan was to guide public and private sector decisions concerning the infrastructure, right-of-way, Level of Service (LOS), land use compatibility, and safety needs of the local arterial transportation system over the next 20 to 30 years.
 - Transportation Improvement Program (TIP)
 - o The TIP includes all programmed transportation projects receiving federal and/or state funds. The TIP for 2005 2007 was adopted in 2005 and is updated every two years.
 - Wausau Area Transit System (WATS) Transit Development Plan (TDP) (1999)
 - The TDP is updated every five years and provides a five-year capital improvement program and service recommendation plan. This plan is being updated in 2005.
- **3. Wisconsin Deportment of Transportation (WDOT) –** WDOT has completed several statewide plans relating to most modes of transportation, including:
 - Wisconsin State Highway Plan 2020
 - Oconsiders the highway system's current condition, analyzes future uses, assesses financial constraints and outlines strategies to address Wisconsin's preservation, traffic movement, and safety needs. The plan is updated every six years to reflect changing transportation technologies, travel demand and economic conditions in Wisconsin.
 - Wisconsin Pedestrian Policy Plan 2020
 - Outlines statewide and local measures to increase walking and promote pedestrian safety. The plan also clarifies the WDOT role in addressing

pedestrian issues and meeting pedestrian needs by establishing policies for better integrating pedestrian travel into the transportation system.

Wisconsin Bicycle Transportation Plan 2020

 Presents a blueprint for improving bicycling conditions and encouraging bicycling in the state and calls for the implementation of metropolitan area bicycle plans that have been prepared by Metropolitan Planning Organizations (MPOs).

• Wisconsin State Airport System Plan 2020

 Developed by WDOT, identifies information related to the state's aviation system. The plan is used by WDOT's Bureau of Aeronautics to pre-qualify airport improvement projects submitted by airport sponsors for funding consideration.

• Wisconsin Rail Issues and Opportunities Report (2004)

O Developed by WDOT, summarizes critical rail transportation issues, suggests opportunities for public sector involvement, and points out areas where additional research is needed. This report reflects input and guidance from a variety of sources including a State Rail Advisory Committee and a Rail Industry and Shippers' Advisory Group. The information in this report was originally intended for a State Rail Plan 2020. WDOT decided to incorporate the rail planning efforts into Connections 2030, WDOT's long-range all-mode transportation plan, and release the Issues and Opportunities Report in the interim. Connections 2030 is currently being developed by WDOT, and is scheduled to be completed by Spring 2006.

4. Federal Highway Administration:

- Federal Highway Administration's Highway Functional Classification: Concepts, Criteria and Procedures
 - o Outlines Federal regulations that States must follow to classify roadways.

Utilities

- Sewer Service Area "208" Plans Section 208 of the Clean Water Act passed in 1972 required the preparation of area-wide water quality management plans. This was translated at the State level through NR 121 of the Wisconsin Administrative Code, which requires that water quality management plans also address sanitary sewer service needs for 20 years into the future. These requirements form the basis of Sewer Service Area "208" Plans. The Wisconsin Department of Natural Resources (WDNR) has review and approval authority over Sewer Service Area plans; however, the technical work to prepare the plan is typically done by local government staff.
 - Wausau Urban Area Sewer Service Plan for the Year 2000 (1981) initial "208" Plan
 - Major Amendment to the Wausau Sewer Service Area Boundary completed in 1992 (City of Wausau) and 1998 (Towns of Kronenwetter and Rib Mountain, Villages of Weston and Rothschild).
 - Current amendment in progress; with all communities in the sewer service area participating. It is anticipated that the plan will be approved by the DNR in December, 2005.

- **Chapter 15 General Code of Ordinances for Marathon County** incorporates by reference rules, regulations, and laws in the Wisconsin Statutes and Wisconsin Administrative Code governing private sewage systems.
- **Wellhead Protection Plans** The State of Wisconsin mandates that **wellhead protection plans** be developed for any municipal well proposed after May 1, 1992. These plans must be approved by the WDNR before a community can use the new well. Section NR 811.16(5) of the Wisconsin Administrative Code defines specific requirements for required wellhead protection plans.

Parks and Recreation

- *Marathon County Comprehensive Outdoor Recreation Plan for 1999-2004*, completed in May 1999, this plan identifies several needs related to parks and recreation and outlines several actions to address those needs.
 - The plan has received a one-year extension from the State of Wisconsin, and is in the process of being updated with a completion date in spring of 2006.
- **The Rivers Edge Master Plan,** adopted in June 1995, outlines a long-range (20-30 year) framework for improving access to the riverfront and enhancing the riverfront environment and provides a master plan to establish a bicycle/pedestrian trail along the banks of the Wisconsin River through the City of Wausau.

Economic Development

- *Marathon County Workforce Profile,* Wisconsin Department of Workforce Development (DWD), annually in October.
- *Final Report*: Marathon County Task Force on the Rural Economy, April 2003.
- **Agricultural Impacts in Marathon County**, University of Wisconsin Extension (UWEX), Ken Barnett and Steve Deller, February 2003.
- **Status of Wisconsin Agriculture**, 2003, UWEX, Mike Wildeck and Ed Jesse, April 2003.
- **Comprehensive Economic Development Strategy 2002-2003**, North Central Wisconsin Regional Planning Commission (NCWRPC), June 2002.

Appendix F: Guidelines for Paving Gravel Roads¹

When a local government considers paving a road, it is usually with a view toward reducing road maintenance costs and providing a smooth riding surface. But paving may not be the right answer. After all, paving is expensive. Municipalities should consider the following factors to help them make the most cost-effective decision. Taken together, these factors provide a framework for careful decision-making.

Traffic Demand

The number and weight of vehicles affects a roads lifespan. Generally speaking, the more vehicles using a road, the faster it will deteriorate. The average daily traffic volumes (ADT) used to justify paving generally range from a low of 50 vehicles per day (vpd) to 400 or 500 vpd. When traffic volumes reach this range, serious consideration should be given to some kind of paving. However, traffic volumes alone are merely guides.

Types of traffic should also be considered. Different types of traffic (and drivers) make different demands on roads. Will the road be used primarily by standard passenger cars or will it be a connecting road with considerable truck traffic or heavy farm equipment? Overloaded trucks are most damaging to paved roads. The functional importance of the road should also be considered. Generally speaking, a major road should probably be paved before residential or side roads are paved. On the other hand, a residential street may be economically sealed or paved while a road with heavy truck or farm equipment usage may best be surfaced with gravel and left unpaved until sufficient funds are available to place a thick load-bearing pavement on the road.

Maintenance Considerations

The following questions should be considered when assessing costs associated with maintaining existing gravel roads:

- How often must new gravel be applied to the gravel road? (Some roads require more than others do.)
- How many times per year must the gravel road be graded?
- How often and in what locations should calcium chloride or other road stabilizers be applied?
- What is the plan for ditching and shouldering?

Base and Drainage Needs

"Build up the road base and improve drainage before paving." This cardinal rule cannot be stressed enough. If the foundation fails, the pavement fails. If water is not drained away from the road, the pavement fails. Paving a road with a poor base or inadequate drainage is a waste of money. It is far more important to ask, "Does this road need strengthening and drainage work?" than it is to ask, "Should we pave this gravel road?"

¹ "When to Pave a Gravel Road" Gravel Roads Maintenance and Design Manual (2001); Kentucky Transportation Center, University of Kentucky at Lexington, KY, adapted from an article from the Vermont Local Roads Program, Saint Michael's College; posted by Local Technical Assistance Program and the National Local Technical Assistance Program Association and sponsored by the US Department of Transportation's Federal Highway Administration.

Safety and Design Considerations

Paving a road tempts drivers to drive faster. As speed increases, the road must be straighter, wider, and as free as possible from obstructions for it to be safe. Paving low volume roads before correcting safety and design inadequacies encourages speeds that are unsafe, especially when the inadequacies "surprise" the driver. In areas with a large number of miles of low volume roads, it is difficult to reduce speeds by enforcement.

Poorly designed and hazardous roads – Roads must be designed to provide safe travel for the expected traffic volume at the design speed. To do this a number of physical features must be considered:

- Sight Distance
- Design Speed
- Alignment and Curves
- Surface Friction
- Lane Width
- Superelevation

Some engineers insist that no road should be paved that is less than 22 feet wide. If this standard is accepted, gravel roads may need to be widened prior to paving. Likewise, bridges along these roads may need widening. It may also be necessary to remove trees or other obstructions such as boulders from the road edge. Considering these and other safety and design factors in the early stages of decision-making can help to achieve the most cost-effective road design that meets desired transportation needs.

Geometric Guidelines for Very Low-Volume Local Roads (< 400 ADT): The American Association of State Highway and Transportation Officials (AASHTO) publishes road design guidelines, including Geometric Guidelines for Very Low-Volume Local Roads (those with <400 ADT). Less stringent design criteria are generally acceptable on these low volume roads because:

- Lower traffic volumes present substantially reduced opportunities for multiple vehicle collisions, and
- Most drivers are familiar with the roadway design characteristics.

The guidelines offer more flexibility for road designers to maintain existing geometric features, which have not been shown to be a safety problem. Allowing less stringent design standards for very low volume roads provides an opportunity to reduce improvement costs, which may be better utilized elsewhere.

Costs

The decision to pave a gravel road involves determining when it becomes economical to pave; and ultimately when the benefits of paving exceed the costs.

Road Preparation Costs – Road preparation costs related to road bed construction activities that occur before paving actually takes place. Costs will vary greatly from project to project depending on topography, types of soils, and availability of good crushed stone or gravel, traffic demands and other factors. Road design should comply with standards in the municipality's road policy; which is one reason to carefully consider, and routinely update, what is contained in the road policy. For larger projects it may be desirable to hire an engineering consulting firm (another cost) to design the road and make cost estimations. For smaller projects construction costs can be fairly closely calculated by adding the estimated costs of materials, equipment and labor required to complete the job.

Maintenance Costs – Another financial consideration is to compare maintenance costs of a paved road to maintenance costs of a gravel road. To make a realistic comparison, estimate the years of pavement life (how long the pavement will be of service before it requires treatment or overlay) and the actual cost of paving. Then compare those costs with those associated with gravel roads as noted above.

User Costs – Not all road costs are directly reflected in a road budget. There is a significant difference in the cost to the user between driving on a gravel surface and on a paved surface. It costs more to operate vehicles on gravel surfaces than on paved surfaces, often 2 or 3 times greater than for bituminous or concrete roads in the same locations. There is greater rolling resistance and less traction, which increase fuel consumption. The roughness of the surface contributes to additional tire wear and influences maintenance and repair expenses. Dust causes extra engine wear, oil consumption and maintenance costs.

By including vehicle-operating costs with construction and maintenance costs, a more comprehensive total cost can be derived.

Public Opinion

Public opinion as to whether to pave a road can be revealing, but it should not be relied upon to the exclusion of any one of the factors already discussed. If a decision to pave is not based on facts, it can be very costly. Public opinion should not be ignored, of course, but there is an obligation by government leaders to inform the public about other important factors before making the decision to pave.

Staged Construction

Local government may consider using "stage construction design" as an approach to improving roads. This is how it works: A design is prepared for the completed road, from base and drainage to completed paving. Rather than accomplishing all the work in one season, the construction is spread out over three to five years. Paving occurs only after the base and drainage have been proven sufficient over approximately one year. Crushed gravel treated with calcium chloride serves as the wearing course for the interim period. Once all weak spots have been repaired, the road can be shaped for paving.

Following are some advantages to keeping a road open to traffic for one or more seasons before paving:

- 1. Weak spots that show up in the sub-grade or base can be corrected before the hard surface is applied, eliminating later expensive repair;
- 2. Risky late season paying is eliminated:
- 3. More mileage is improved sooner;
- 4. The cost of construction is spread over several years.

Note: Advantages may disappear if timely maintenance is not performed. In addition, the surface may deteriorate more rapidly because it is thinner than a designed pavement.

Summary

Some existing local roads are not engineered to accommodate the traffic they receive. Larger volumes of heavy trucks and other vehicles are weakening these roads at a fast rate. Paving roads as a sole means of improving them without considering other factors can be a costly mistake. Careful consideration of the factors described above will help to assure local government officials that they are making the right decision before paving a gravel road.

Appendix G: Economic Development Programs

The following list provides a summary of the major programs and resources available to assist with economic development efforts. This is not an exhaustive list and local officials are encouraged to contact Marathon County and MCDEVCO for more complete and current information.

Federal Programs

U.S. Department of Agriculture, Rural, Development: Provides a wide range of programs aimed at farming and rural areas, including:

- **Business and Industry (B&I) Guaranteed Loan Program:** Provides financial backing for rural businesses to create and maintain employment. Assistance includes loans for working capital, machinery and equipment, buildings and real estate, and certain types of debt refinancing.
- **Rural Business Enterprise Grants (RBEG) Program:** Provides grants to public entities, private nonprofit corporations, and Federally-recognized Indian Tribal groups to finance and facilitate small and emerging private businesses located outside a city or urbanizing area.
- **Rural Business Opportunity Grant (RBOG) Program**: Provides grants to promote sustainable economic development in rural communities with exceptional needs.

Economic Development Administration (EDA): Provides a variety of assistance programs focusing on long-term economic growth targeted to areas with demonstrated need or economic distress, including:

- **Public Works Program:** Investments aimed at revitalization, expansion, and upgrades to physical infrastructure specifically to attract new businesses and generate private sector jobs. Examples: water and sewer facilities, rail spurs, port improvements, access improvements.
- **Economic Adjustment Program:** Assistance to mitigate local economic changes resulting from corporate restructuring, natural disasters, depletion of natural resources, or new federal laws or requirements.
- **Technical Assistance Program (Local):** Assistance to help fill knowledge and information gaps to help local leaders in distressed areas make informed decisions regarding economic development.

U.S. Small Business Administration (SBA): The SBA provides financial, technical, and management assistance generally aimed at business startup and growth. Some programs include:

Certified Development Company (504 non-profit corporation) Loan Program:
 Long-term, fixed-rate financing for major fixed assets, such as land and building improvements.

Wisconsin State Programs

Most State programs are provided through the Wisconsin Department of Commerce, although other departments also offer limited programs. Primary State programs include:

- **Community Development Block Grants (CDBG):** There are several CDBG programs focusing on different aspects of economic development.
 - o **Economic Development Program** grants to establish loans for business start-up, retention, and expansion.
 - Public Facilities for Economic Development Program: Helps underwrite the costs of necessary public infrastructure to retain or create employment opportunities.
 - o **Public Facilities Program:** Helps finance infrastructure and facilities to serve low and moderate income persons.
 - o **Emergency Grant Program:** Helps restore or replace critical infrastructure damaged or destroyed as a result of natural or manmade catastrophes.
- **Community Based Economic Development Program (CBED):** Provides funding assistance to local governments and community-based organizations that undertake planning, development, and technical assistance projects supporting business development.
- **Main Street Program:** Supports efforts to help communities organize to revitalize their downtowns.
- **Wisconsin Technology Zone Program:** Offers tax-credits to high-tech firms that meet certain criteria.
- **Wisconsin Development Zone Program:** Tax benefit initiative to encourage private investment and improve both the quality and quantity of employment opportunities.
- **Enterprise Zone Program:** Provides tax incentives to new or expanding businesses whose projects will enhance distressed areas.
- **Industrial Revenue Bond (IRB) Program:** Allocation of Federal tax-exempt status on bonds that will be issued by a business to finance an expansion project. Program is limited to small and mid-size manufacturers with strong financial statements.

Wisconsin Department of Workforce Development (DWD): This department offers several programs aimed at investing in the workforce, including programs in apprenticeship, vocational rehabilitation, employee training, child care, etc.

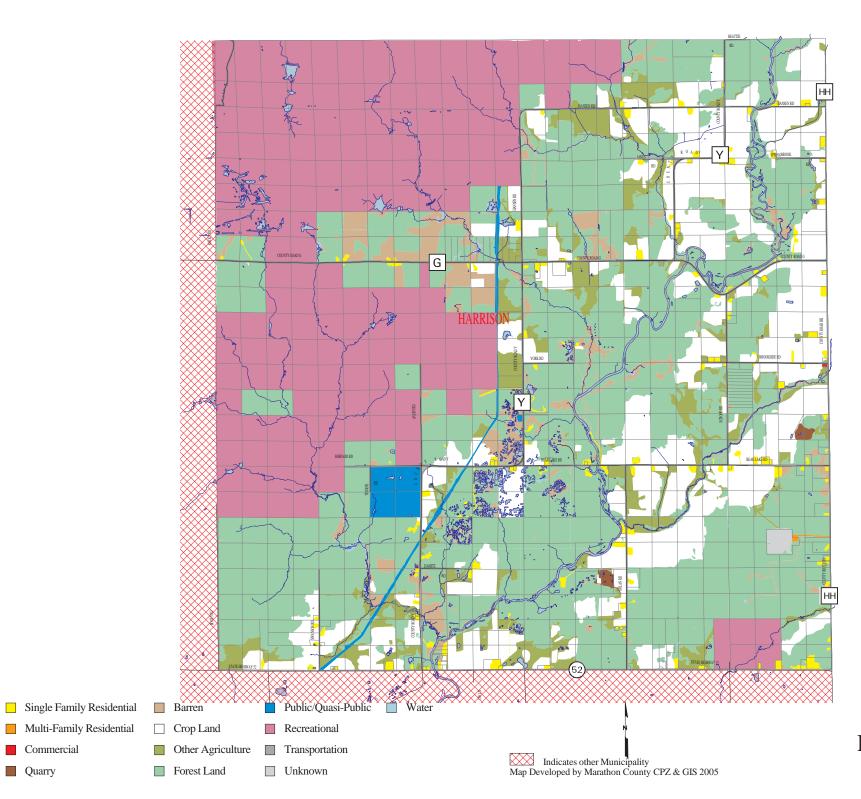
Wisconsin Department of Natural Resources (DNR): The Bureau of Remediation and Redevelopment consolidates state and federal clean up programs and provides assistance to help businesses clean up and re-use existing brownfield sites.

Forward Wisconsin, Inc.: This is a State public-private marketing and business recruitment organization that focuses on marketing outside Wisconsin to attract new economic development to the State.

County, Regional, and Local Programs

The primary financial assistance available at the County and local level are revolving loan funds. The primary entities in Marathon County that participate in economic development related efforts include:

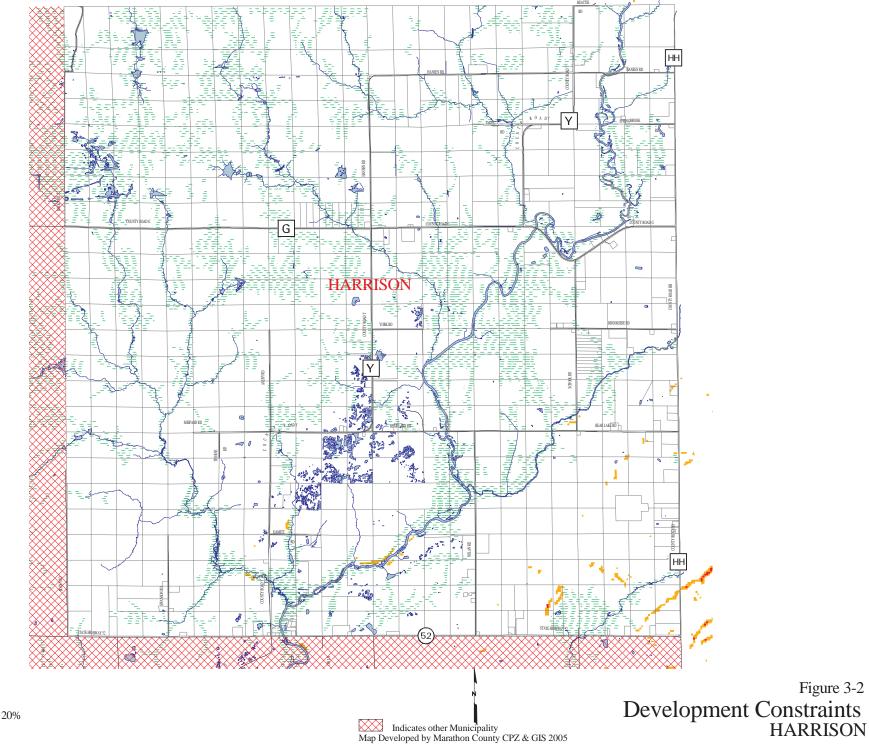
- North Central Wisconsin Regional Planning Commission (NCWRPC): The NCWRPC is a designated Economic Development District and provides services such as economic research, marketing, financial packaging, evaluation and analysis of public infrastructure needs that support private economic development activity. The NCWRPC also works with local units of government to maintain eligibility for certain grants.
- North Central Wisconsin Development Corporation (NCWDC): A regional organization created for the purpose of managing a regional revolving loan fund. The NCWDC is staffed by the NCWRPC.
- Wausau Region/Marathon County Chamber of Commerce: The Chamber provides leadership and support for economic development efforts in the region, including a variety of networking programs, mentoring services, workshops and business counseling services.
- Marathon County Development Corporation (MCDEVCO): This is the economic development arm of the Wausau Area Chamber of Commerce. MDCEVCO serves all businesses and communities in Marathon County. MCDEVCO works with individual business, municipalities, and the banking community to facilitate investment in the region. Specific programs administered by MCDEVCO include a revolving loan fund, a small business incubator, and job training funds.
- Wausau/Central Wisconsin Convention and Visitors Bureau (CVB): The CVB promotes the area to the business and leisure traveler and provides information on the area to visitors and residents.



Commercial

Quarry

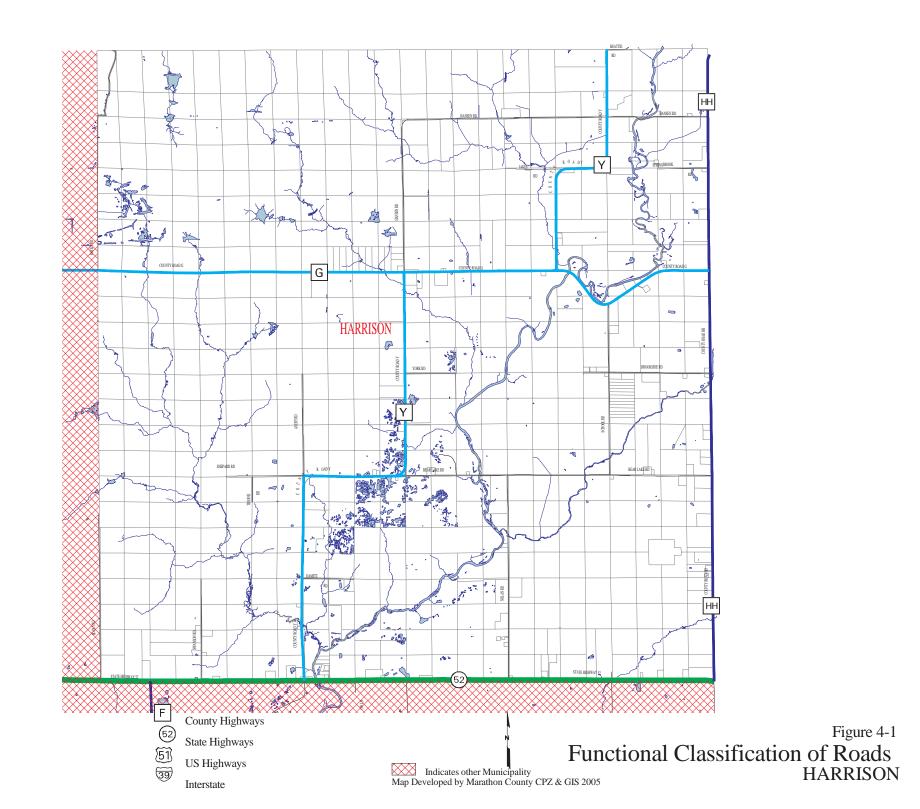
Figure 3-1
Future Land Use
HARRISON



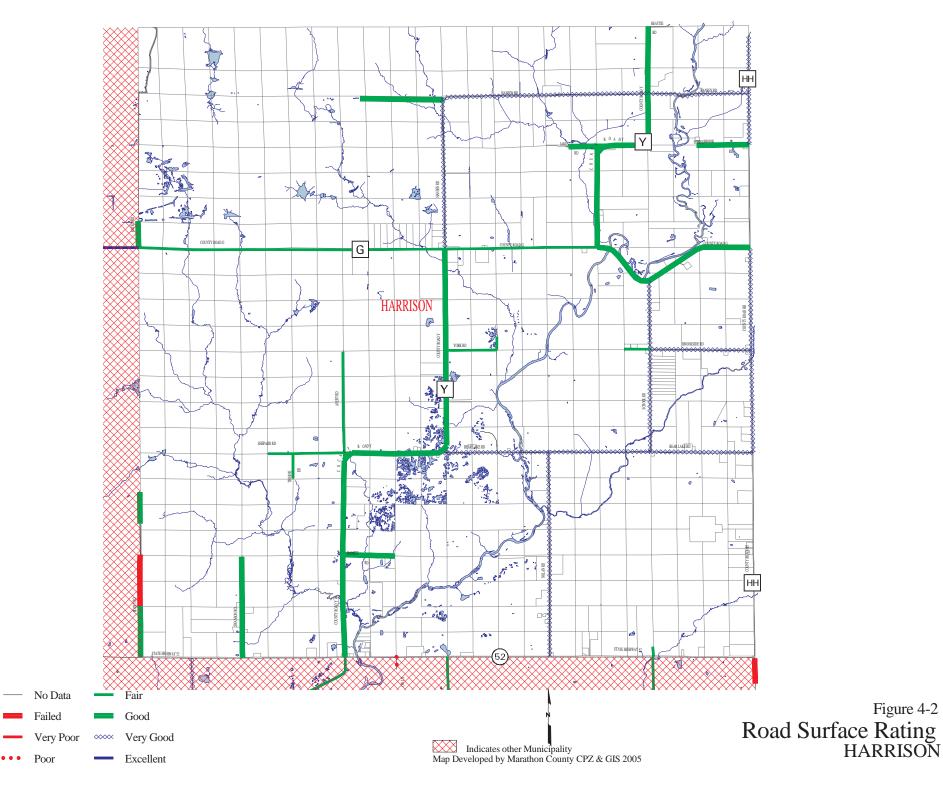
Environmental Constraints

Slopes Generally 12-20%

Slopes generally greater than 20%



Principal ArterialMinor ArterialMajor CollectorMinor Collector



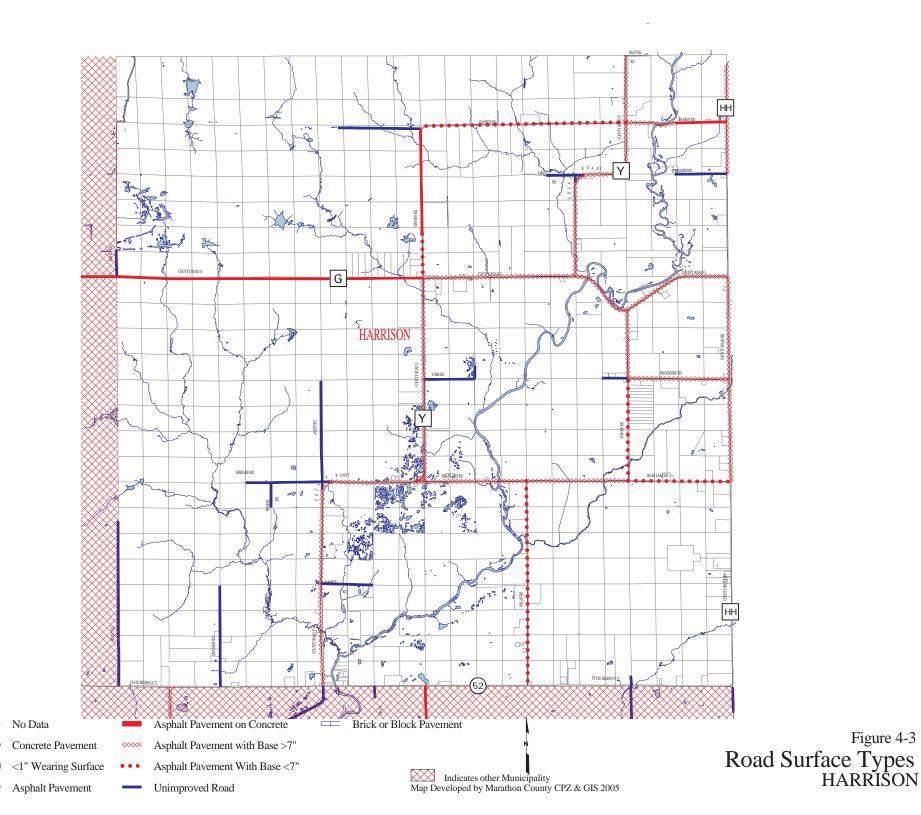


Figure 4-3