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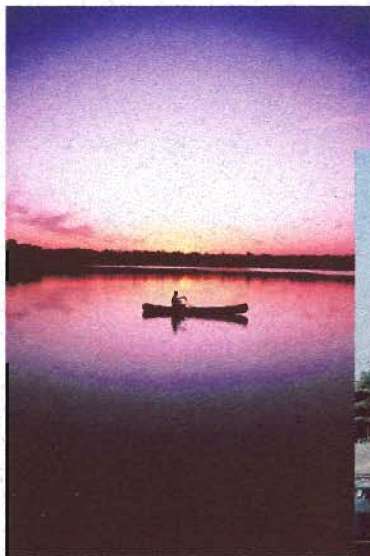
Planning Report



Phelps Year 2020 Comprehensive Master Plan

Town of Phelps
Vilas County, Wisconsin

February 2000



Foth & Van Dyke
consultants · engineers · scientists

Town of Phelps Comprehensive Master Plan

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1 Forward

Located in northeastern Vilas County, the town of Phelps defines the term 'northwoods'. Phelps is a large, rural, town that covers 109 square miles of land area and is home to 38 lakes comprising 10,997.1 acres of surface water, which is 11.4% of the county's total surface water. Phelps is primarily a recreational community with approximately 71% of land in forest. The Nicolet National Forest accounts for 52% (36,477.5 ac) of the town's land area, with privately-owned forest land comprising another 19% (13,337.4 ac).

The purpose of the *Phelps Year 2020 Comprehensive Master Plan* is to encourage orderly use and development of land in the town of Phelps. At the same time, the preparation of the plan is also intended to promote and stimulate public participation in the planning process by bringing local issues to the forefront. The plan is based on an analysis of existing conditions, market trends, public input, and determination of future needs.

The town of Phelps faces significant challenges to its environment as town officials prepare for managing growth and change into the next century. Blessed with an abundance of lakes and public land, town officials face the inherent responsibility of balancing the demand for the town's natural amenities with the need to provide basic economic opportunity and services to a growing population in an area which experienced tough economic times decades before.

Due to the relatively low population and concentration of people, it would be a stretch to say Phelps is facing a sprawl crisis as witnessed in the populated southeast area of the state. However, growth and population pressures are impacting the landscape in a dramatic fashion. A permanent population of 1,295 persons (1998 estimated population) swells to nearly 5,500 persons in the peak of seasonal activity. Pressure to develop lake and river front property and the fragmentation of larger forest tracts are forces driven by a market demand that has facilitated steady growth. Between 1991 and 1999, a total of 270 residential permits were granted for new houses in the town, an average of 30 permits per year. Another indicator of development pressure is the increase of the town's equalized value which saw the 1991 values of \$66.2 million increase to more than \$134 million in 1998.

The forested, lake and river front properties are valuable and limited resources. The driving market demand, combined with the fact that 68.0 % of the town (forest and water) is under public ownership, forces development to a smaller geographic area. The balance of growth, economic opportunity, and individual property rights within the greater Phelps community, without sacrificing environmental quality and sense of community, becomes the challenge. In response to public demand, the town commissioned the services of Vilas County University of Wisconsin-Extension Community Resource Development Agent Bryan Pierce in May, 1998 to facilitate a planning and development survey to address several issues and concerns related to the physical development, character, and long-term direction of growth. The issues were identified as follows:

1. The quality and character of the town was being affected by development. Residential and commercial uses were occurring throughout the town, without relation to a coordinated plan or uses that were inappropriate relative to size, location, or type of use.
2. Demand for lakefront property and lake access had caused increased development pressure on lakes throughout the town (and Vilas County), threatening many of the smaller lakes with overcrowding and the problems associated with overuse: pollution, health hazard, property damage, adverse affects on public recreational experiences, and adverse affects on riparian rights and property values.
3. The general aesthetic character, attractiveness, and appeal of the community was a concern. The type and location of commercial development, northwoods character issues including signs, building materials, site design regulations for new commercial uses, and downtown area planning and development needed to be addressed.
4. The lack of land use controls and guidance had allowed a development pattern to occur that was threatening many of the reasons people chose to live and own property in the town. Zoning was the predominant land use control, but was not coordinated with the development pattern resulting from high growth rates brought on by the increasing demand for northwoods real estate.

There were other motivational factors the town of Phelps was aware of as well which pointed to the need for local government involvement. At the state level, the State Interagency Land Use Council assembled under the direction of Governor Tommy Thompson published the report *Planning Wisconsin* on July 1, 1996. The report had numerous recommendations but primarily focused on giving each level of government, including towns, greater responsibility and interlocking role in land use planning. Likewise, the Wisconsin Towns Association (WTA) advocated for town government to become more active in the development of local land use plans. In fact, during the WTA's 1996 and 1997 district tours, the association strongly encouraged that towns develop land use plans as a tool to manage growth and change.

The WDNR also published *Northern Initiatives: A Strategic Guide for DNR Management in Northern Wisconsin in the Next Decade- 1996-2006*. The report was based on the guiding principle: Keeping the North the North. As a follow-up to the *Northern Initiatives* report the WDNR published *Northern Wisconsin's Lakes and Shorelands: a report examining a resource under pressure* in January 1996. The report was conducted to address public response stemming from the need to better understand the development pressures on northern Wisconsin lakes. The report revealed the following interesting facts:

- ♦ Since the 1960s, about two-thirds of previously undeveloped lakes 10 acres and larger have been developed (had one or more dwellings built on their shores);
- ♦ The average number of dwellings on shorelands not in public ownership has more than doubled over the same time period; and

- ♦ all undeveloped lakes not in public ownership could be developed within the next 20 years--at the latest-- if the present development rates persist.

The report stated those serene, idyllic lakes where people seek to "get away from it all" are rapidly disappearing as cabins, piers, boat shelters and other developments increasingly line their shores. Vilas County responded with Lakes Classification and revised shoreland zoning. However, there was little direction at that time for general land use planning from the county or the state.

With the extent and knowledge of the local, regional and state issues well in hand, the town of Phelps sought to "do their part" to help address local land use issues and set their course into the next millennium. The town, in attempting to put the necessary tools in place to guide its growth and development in an orderly and efficient manner, took action on local land use planning by executing an agreement with the consulting firm of Foth and Van Dyke in October, 1997 to assist in the development the town's first land use plan.

Town officials took five major steps to launch the development of the plan:

1. The town submitted and was successful in obtaining two WDNR lake planning grants to off-set the cost of developing the plan and ordinances necessary for plan implementation.
2. The town established the town Master Plan Steering Committee, an 11 member advisory committee, to guide the development of the plan.
3. The town proceeded in conjunction with the Phelps Community Development Commission to address improvements in the Phelps downtown area.
4. The town held an Issues Identification Workshop on November 1997 before the plan commenced to encourage local input into the planning process.
5. The town commissioned a community planning survey to every town property owner to solicit input on a variety of town issues and policies related to planning for the future of the community.

As a result of 12 meetings with Foth and Van Dyke, three public informational meetings, and many Phelps Steering Committee meetings, the *Phelps Year 2020 Master Plan* evolved. The plan was developed per the dedication and hard work of the Master Plan Steering Committee, town officials and residents who contributed unselfishly to developing a plan per which they would be proud.

At the time of this report printing, the Phelps community could not achieve consensus relative to preferred town growth. Specific questions on the preferred use, location, and density of lands in the town remain yet unanswered. The Town Board, in responding to continued public pressure,

voted to withdraw town funding of planning at the November, 1999 town budget meetings, thereby suspending planning activity indefinitely. This report packages the planning effort put forth by the town of Phelps and Foth and Van Dyke. This report is not official nor adopted, but can serve as the basis for future planning work if it be the will of the town to do so.

Cooperation certainly must follow understanding. Indeed, there are tough choices ahead and no easy answers. The landowners must be free to develop their property, but the development should fit within the guidelines written and understood to be in the best interests and overall good of the larger community. Reasonable growth guidelines create sensible land use choices; the opposite will be harsh in the long-term effect of character, coordination, and potentially to the cost of providing services.

2 Public Participation Process

Development of the 1999 Phelps Comprehensive Master Plan was driven by the opinions expressed by town residents and landowners. Numerous techniques were utilized to gather public input in the plan development process. Public input tools and their representative results are summarized below.

It must be noted the meetings listed in the following section were facilitated by Foth & Van Dyke. The Phelps Master Plan Steering Committee and the Phelps Community Development Committee met on numerous occasions to work on elements included in this document, and by no means is the entire plan development process effort encapsulated by the following summary description. A special note of appreciation to those folks who met often and worked hard to get the plan done, and for those who chose to attend the meetings and be a part of the process. Thank you.

2.1 Meeting No. 1 (November 11, 1997) Issue Identification Workshop

The Town Issue Identification Workshop was the first phase of a public participation process for development of the Phelps Comprehensive Master Plan. The workshop was preceded by an aggressive public outreach effort to announce the workshop and encourage community participation. The workshop was conducted at 7:00 p.m. on Tuesday, November 11, 1997, at the Phelps Community High School commons. The purpose of the meeting was to obtain from the participants their perceptions on the following question: *In your opinion, what do you feel are the most important land use management issues facing the Town of Phelps over the next two decades?* a total of 74 workshop participants registered for the session. For specific results of the Issue Identification Workshop, please reference the report, Town of Phelps Comprehensive Land Use Planning Issue Identification Workshop, Vilas County, Wisconsin, November 11, 1997. The report was prepared by Vilas County UW-Extension agent Bryan Pierce, with assistance from Janet Christianson. The report is available at the Phelps Town Hall and the Vilas County UW-Extension office.

Following an introductory slide presentation describing the components of a comprehensive land use plan, the participants were divided into five groups. Each group followed the same sequence of activities using a nominal group process. First, each person was asked to write down on note cards their own reaction to the primary question. Next, group members share their issues in a round-robin fashion, while the facilitators from Foth & Van Dyke and Vilas County recorded the responses on flip chart paper.

After all of the issues were recorded, there was discussion within the small group to clarify statements and consolidate duplicate issues. Then, members were asked to select their top five issues. The ten issues with the most votes in the small group were then listed on a summary sheet (plus or minus one or two depending on how the voting totaled). Complete lists of the issues generated by each of the five groups, as well as their individual top priorities, are included in the report.

The top issues from each of the five groups were then presented to the full group. Obvious duplications were consolidated. All participants were then asked to vote a second time among the final list of priority issues. This was a secret vote as each person wrote their top five issues on note paper. The final results of priority issues were tabulated by the facilitators. Table 2-1 identifies the top ten issues.

The lists of issues and rankings generated by the workshop participants were used by the Phelps Master Plan Steering Committee throughout the planning process to help formulate the plan. The results were also used by the Town Plan Steering Committee and UW-Extension to prepare questions for a Community Planning Survey. The mail-out survey will be used as the second phase of public input for the Comprehensive Master Plan planning process, discussed further in this section.

Table 2-1
Final Top 10 Priority Land Use Management Issues for the
Town of Phelps, Vilas County, Wisconsin
November 11, 1997

In your opinion, what do you feel are the most important land use management issues facing the town of Phelps over the next two decades?

Rank	No. of Group Votes	Issue
1	27	Develop a stronger economic base for the area, provide more good jobs for the community and youth by encouraging development such as business and light industrial.
2	26	More business is needed along with modernization within the downtown area.
3	19	Develop and beautify the downtown lakefront to become a centerpiece of the town, including an area for community functions.
4	18	Control spending by the town and school district (government units) to keep property taxes down.
5	17	Preserve the quality of all natural resources - lakes, forests, streams, air and lack of noise - that attract people to the area and utilize these resources for the well-being of the community.
6	15	More patrol and control of motorized lake vehicles and snowmobiles on trails (water and jet ski use hours).
7	(14)	Develop a variety of trail systems (hiking/biking/skiing/snowmobiling/motorized) which could possible be linked with other communities. Some trails could be multi-purpose, while other may be for segregated uses.
8	13	Approach change with caution. "We like some things about the town as is."
8	13	Keep the school a high priority.
10	11	Need for sanitary sewer systems around lakes to preserve water quality. Reorganize the sanitary district to include lakes and storm sewers and develop a 10-year growth plan for the district.

2.2 Meeting No. 2 (January 29, 1998)

The Phelps Master Plan Steering Committee was organized and was familiarized with the Comprehensive Master Plan process and timetable. The committee worked with Foth & Van Dyke to review and apply for (with success) Wisconsin Department of Natural Resources Lake Planning Grant Assistance for state matching planning grant funds. The committee reviewed and discussed the November 11, 1997 Issue Identification Workshop with UW-Extension Agent Bryan Pierce, and discussed the development and administration of a community survey. The Committee decided to develop a town-wide survey to be sent to all taxpayers in the town, including both permanent and seasonal residents.

2.3 Phelps Town Survey

As an integral component of the planning process, the town of Phelps worked with Vilas County UW-Extension Agent Bryan Pierce to develop and distribute a community planning opinion survey.

The Town of Phelps Comprehensive Master Plan Steering Committee distributed the Phelps Community Planning Survey to all property taxpayers in May 1998. The survey solicited input on a variety of town policies related to planning for the future of the community.

A total of 1,610 surveys were mailed first class with a self-addressed stamped return envelope. an additional 9 surveys were hand distributed to renters through the town clerk's office. A total of 714 surveys were received (44.6% response rate). In some households, both husbands and wives completed the survey form, so a total of 785 completed surveys were compiled.

The Executive Summary and survey results can be reviewed in Appendix 2-1.

2.4 Meeting No. 3 (May 14, 1998) Downtown Focus

The Phelps Community Development Corporation met with Foth & Van Dyke staff and Dean Proctor (Dean Proctor Design, a Foth and Van Dyke Landscape and Urban Design subconsultant) to conduct a downtown/waterfront vision process for the unincorporated town center of Phelps. Foth & Van Dyke facilitated discussion relative to the downtown district's opportunities (and town desires) and limitations, the results of which can be found in Section 12.3, Downtown and Waterfront Directives. Dean Proctor led discussion relative to Downtown and waterfront aesthetics, design standards, existing and proposed developments and overall desired future condition. The group reviewed facade improvements as developed through the University of Wisconsin Extension (Chuck Law, Bryan Pierce). Finally, the meeting participants toured the downtown and waterfront areas while discussing visual improvement ideas and development design concepts with Dean Proctor.

2.5 Meeting No. 4 (September 23, 1998)

A public informational meeting was held at the Phelps Community High School to discuss the Phelps Community Planning Survey (see Appendix 2-1). Seventeen people attended. Bryan Pierce of UW-Extension facilitated discussion and displayed results of the 785 (44.6% response rate) town residents who answered the survey. Foth & Van Dyke then explained how the Phelps Community Planning Survey was to be used in plan development, and how the results would impact decision making throughout the land use planning process.

2.6 Meeting No. 5 (September 30, 1998) Downtown Focus

The Phelps Community Development Corporation (PCDC) met with Foth & Van Dyke to review draft visual perspectives developed by Dean Proctor Design of the downtown and waterfront areas. The draft design plans included a bird's eye aerial perspective (future perspective) of the downtown and waterfront, lakefront redevelopment opportunities (two concepts) and an activity center conceptual design plan to aid the focus of redevelopment efforts. The Phelps Community Development Committee (PCDC) worked through several design changes and enhancements on the concepts. The effort can be viewed in Maps 12-1 through 12-3, in Section 12. The downtown and waterfront visioning process is discussed in greater detail in Section 12.

2.7 Meeting No. 6 (September 30, 1998)

The Phelps Master Plan Steering Committee met subsequent to the PCDC as noted above to review, discuss and finalize draft plan goals and objectives, vision statement, Phase I inventory data (demographics, socio-economic information, and trends that impact the land use) and review the downtown and waterfront conceptual design plans. The Committee also reviewed and discussed draft land use, zoning, resource protection, water features and transportation maps.

2.8 Meeting No. 7 (October 22, 1998)

The second public informational meeting was held at the Phelps Community High School. Seventy-five people attended. John Williams of Foth & Van Dyke presented inventory and research data that pertained to Phelps' demographics, housing, socio-economic factors, population and housing unit forecasts, transportation-related conditions, trend information, and the corresponding and anticipated land use impacts over the planning period.

John Williams of Foth & Van Dyke also presented the Phelps vision statement, goals and objectives, project timeline, downtown conceptual design plans, building facade improvements in the downtown and presented all GIS maps that were built to facilitate the planning process.

2.9 Meeting No. 8 (December 17, 1998)

The Phelps Master Plan Steering Committee met to take development of "Phase 2", the actual building of the preferred land use plan. The Master Plan Steering Committee reviewed town maps via GIS acetate overlays to see how layers of information impact land use in the town.

The committee also discussed the development and selection of preliminary land use categories that define land use into "classes" of preferred use by the type of use preferred in an area, location of the preferred land use, and density of development that may occur in the planned area. The committee also discussed and mapped preliminary preferred land use class locations on a draft future land use map.

2.10 Meeting No. 9 (January 28, 1999)

The Master Plan Steering Committee met and refined the preferred land use classification definitions. The Committee decided to build the preferred land use map with thirteen use classifications detailing preferred use area throughout the town (see Section 11). The Committee also revised the preliminary draft of the preferred land use map (see Map 11-1) that was displayed and discussed at the June 24, 1999 public informational meeting discussed below.

2.11 Meeting No. 10 (March 12, 1999)

The Master Plan Steering Committee met to define the preferred land use map and preferred land use classifications (the committee also met on February 17, 1999 to review and discuss the draft preferred land use map). The committee also reviewed and discussed the plan's proposed implementation strategy. The Steering Committee noted additional time for review and discussion was necessary prior to public presentation. The committee noted it would meet as many times as necessary to refine the plan and preferred land use classifications prior to the next public informational meeting. A tentative date for a public information meeting was rescheduled to June, 1999.

2.12 Meeting No. 11 (June 8, 1999)

The Master Plan Steering Committee met to finalize the Year 2020 Preferred Land Use Map and preferred land use classifications. The committee discussed the map and classifications in detail and prepared for the June 24, 1999 public informational meeting held at the Phelps High School. The committee also discussed plan implementation at length.

2.13 Meeting No. 12 (June 24, 1999) Public Informational Meeting

The Phelps Master Plan Steering Committee hosted a community public informational meeting at the Phelps High School from 7:00-9:30 p.m. Eighty-five people attended. A brief overview of the planning process and progress to date was summarized, and the Year 2020 Preferred Land Use Map was presented in detail. Each meeting participant was handed a Year 2020 Preferred Land Use Map, preferred land use classifications and a survey asking for their input. The presentation lasted for one hour, followed by an open question and answer session. All maps were on display, including the downtown development and design concept plans.

3 Goals and Objectives

The following goals and objectives were developed based on the results of the Issues Identification Workshop, Community Survey, and direction from the Town of Phelps Comprehensive Master Plan Steering Committee and the Phelps Community Development Corporation. Goals are broad statements that express public priorities about how the town of Phelps should develop and redevelop over the next twenty years. Objectives are more specific than goals and are attainable through strategic planning and adoption of the plan's recommendations and implementation strategies. Land use policies provide even more direction to the town board to guide future growth and development. The goals, objectives, and policies should always be consulted to evaluate growth opportunities in the town.

Mission Statement

Approach change with caution in an effort to maintain and enhance the town of Phelps wooded rural character and "small town northwoods charm" by balancing housing demands and economic growth opportunity which is safe, aesthetically pleasing, and environmentally sensitive.

Goal: Preserve the environmental quality of all the natural resources (lakes, forests, streams, air, and lack of noise) for the well being of the community.

Supporting Objectives:

1. Prohibit development within environmentally sensitive areas.
2. Review and evaluate forestry density standards for housing.
3. Evaluate the feasibility of "cluster development" which reduces further forest fragmentation.
4. Adopt forestry density standards consistent with appropriate forestry management practices.
5. Pursue increasing the minimum lot size on waterfront property.
6. Explore opportunities to develop a purchase of development rights and/or a conservation easement program to protect properties of natural or scenic significance.
7. Develop a POWTS (privately owned wastewater treatment system) inspection, compliance, and enforcement program for all septic systems.
8. Prohibit the use of holding tanks as a private on-site treatment system option for new construction unless for existing lots of record prior to the adoption date of this plan.

9. Support the enforcement of wetland protection and erosion control in shoreland areas.
10. Maintain existing natural vegetative buffers between wetlands, surface waters and intensive land uses.
11. Utilize a waterway classification system (to classify waterways by sensitivity to development) to manage waterway development.
12. Encourage and provide assistance in the development and the maintenance of lake and waterway associations and districts.

Goal: Control the type and location of residential, commercial, and industrial development.

Supporting Objectives:

1. Designate suitable land for future residential, commercial, light industrial, and recreational uses in accordance to the Phelps Comprehensive Master Plan recommendations.
2. Encourage development in areas currently served by public utilities, roads, parks, schools, and other key services.
3. Guide future development within or adjacent to existing compatible development.
4. Cluster commercial and light industrial development along STH 17 (east and west) and CTH E.
5. Explore establishment of town land division ordinance tailored to Phelps's land use vision.
6. Develop an ordinance to regulate nuisances and aesthetic standards as identified by the town.
7. Review, and if appropriate, pursue change of the Vilas County Comprehensive Zoning Ordinance which will promote Phelps's land use vision.
8. Adopt village powers to pursue ordinance adoption which promote the Phelps vision and protects the public health, safety, and general welfare.
9. Coordinate town planning efforts with the Vilas County Land Use Plan.

Goal: Develop and beautify the downtown and lakefront to become a centerpiece of the town, including an area for community functions.

Supporting Objectives:

1. Develop a conceptual downtown revitalization plan which addresses theme, street scape, building improvements, and design review criteria.
2. Develop a downtown landscaping plan that specifically addresses location, style, and amount of street lighting, landscape plantings, flower boxes, sidewalks and trails.
3. Promote community activities and events which benefit local and downtown business and merchants.
4. Preserve and utilize old buildings and historic sites to anchor the downtown and areas small town theme.
5. Retain and acquire public common areas or park sites to accommodate special events and community activities in the downtown area.
6. Provide pedestrian linkages (sidewalks, trails) connecting the downtown and activity areas.

Goal: Develop a stronger economic base in the town.

Supporting Objectives:

1. Focus economic development marketing on tourism orientated business, service, retail, and light industrial businesses.
2. Retain and support existing business and industry.
3. Accommodate and attract "clean" light industry and business.
4. Pursue opportunities for financial and other incentives to attract and locate business.

Goal: Maintain and create an aesthetically pleasing community consistent with a "small town" theme.

Supporting Objectives:

1. Pursue development and redevelopment efforts which serve to enhance the rural feel and small town character of Phelps.

2. Develop and implement design review standards which enhance the visual appeal of existing and future developments which are consistent with small town character such as architecture, landscaping, exterior materials, color, and signage.
3. Develop a town sign ordinance.
4. Develop "Phelps Identity" signage and other methods of promotion to increase town and downtown aesthetics, vitality and appeal.

Goal: Enhance and develop year round recreational opportunities in the town while minimizing user conflicts.

Supporting Objectives:

1. Establish common sense regulations to coordinate the proper use, access, and opportunity of motorized watercraft on lakes and rivers, based on a waterway classification system.
2. Enhance the town's existing parks and provide for recreation facilities that provide multi-use recreation opportunity.
3. Maintain existing and improve public access to waterways.
4. Maintain existing and provide additional snowmobile, hiking, skiing and biking trails.
5. Explore opportunities to develop a town multi-use trail system.
6. Connect Phelps multi-use trails to other Vilas County communities.
7. Pursue state and federal funding programs which can aid in the development and acquisition of parks, trails, scenic and environmentally significant areas.
8. Recognize need to accommodate all age groups in recreational pursuits.
9. Consider the development of an impact fee on new or expanded developments to support the acquisition, development, and service costs of recreational facilities.
10. Implement the town of Phelps Comprehensive Outdoor Recreation Plan.

Goal: Balance the need for town growth with the cost of providing public services.

Supporting Objectives:

1. Balance community improvements with available funding sources to ensure equitable taxation.
2. Investigate expansion of the Phelps Sanitary District for provision of public water and sewer.
3. Provide and maintain a safe and reliable town roadway network, including curbs, gutters, and sidewalks.
4. Maintain and improve the high quality of existing town services.
5. Consider the development of a parkland dedication ordinance.
6. Monitor and periodically review current service agreements.

Goal: Create, promote, and maintain a pro-active planning process in the town.

Supporting Objectives:

1. Periodically review the adopted Phelps Comprehensive Master Plan and associated ordinances relative to effectiveness in achieving town goals.
2. Develop and provide educational materials and conduct local workshops on topics pertinent to planning goals.
3. Pursue development of a town newsletter (or other means of public communication) to ensure year around and seasonal residents and property owners are informed regarding town issues, business, and development projects.
4. Establish relationships and communication between local governments and agencies to encourage discussion and action on land use, transportation and service issues.
5. Consider the development of an official map to reserve adequate right-of-way for future road linkage.
6. Continue the planning committee functions after plan approval to monitor plan effectiveness, review development proposals and required updates.
7. Explore the development of a town Plan Commission.

4 Community Profile

4.1 Population

Population change is the primary component in tracking a community's past growth as well as predicting future population trends. Population characteristics relate directly to the town's housing, educational, community and recreational facility needs, and to its future economic development. It should be noted that over time, there are fluctuations in the local and regional economy which generally cannot be predicted. These fluctuations and changes may greatly influence the community's population growth and characteristics. (Additional population characteristics are included in Appendix 4-1.)

Comparative Population Growth

Table 4-1 depicts the past census figures for the town of Phelps and selected areas, including the city of Eagle River, Vilas County and the state of Wisconsin. Similarly, Figure 4-1 illustrates the overall growth in population from 1970 to 1999 for the town of Phelps and the selected areas.

Table 4-1
Comparative Population Growth
Town of Phelps and Selected Areas
1970-1999

	1970	1980	1990	1999	% Change 1970-80	% Change 1980-90	% Change 1990-99	% Change 1970-99
Town of Phelps	876	1,129	1,187	1,321	28.9%	5.1%	11.3%	50.8%
City of Eagle River	1,326	1,326	1,374	1,415	0%	3.6%	3.0%	6.7%
Vilas County	10,958	16,535	17,707	19,594	50.9%	7.1%	10.7%	78.8%
State of Wisconsin	4,417,731	4,705,767	4,891,769	5,274,307	6.5%	4.0%	7.8%	19.4%

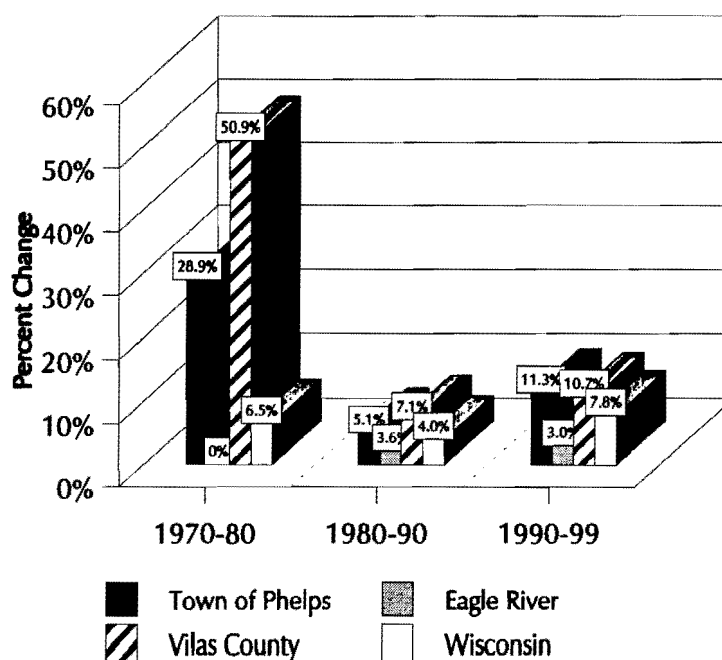
Source: Wisconsin Department of Administration, Official Municipal Population Projections 1990-2015, June 1993; Wisconsin Department of Administration, Official Population Estimates, 1999.

The town of Phelps has experienced significant population growth between 1970 and 1999, with an average population increase of 17% per decade. The largest population increase occurred between 1970 (population 876) and 1980 (population 1,129), during which there was an increase of 253 persons or 28.9 percent. The population continued to increase slightly from 1,129 in 1980 to 1,187 in 1990 (a 5.1% increase). The 1999 population estimate shows the trend continuing, indicated by an increase of 134 persons, or a growth of 11.3 percent from 1990. Overall, the town of Phelps has experienced a 50.8% increase in population between 1970 and 1999, increasing by 445 persons.

The city of Eagle River experienced very slow but steady population growth, increasing 2.2% per decade between 1970 and 1999. Overall, Eagle River saw an increase in population from 1,326 persons in 1970 to 1,415 persons in 1999, a total increase of 89 persons or 6.7%, compared to the 50.8% increase experienced by the town of Phelps.

Vilas County experienced the greatest population growth between 1970 and 1999 when compared to all other areas identified in Table 4-1, increasing 78.8 percent. Therefore, the high increase in population experienced by the town of Phelps is reflective throughout the county. Overall, the state of Wisconsin experienced a 19.4 percent increase in population between 1970 and 1999. The town of Phelps and Vilas County both experienced significantly higher increases in population during this time period than the state overall.

Figure 4-1
Comparative Population Growth
Town of Phelps and Selected Areas
1970-1999



Source: Wisconsin Department of Administration, Official Municipal Population Projections 1990-2015, June 1993; Wisconsin Department of Administration, Official Population Estimates, 1999.

Population Density

With a 1990 population of 1,187 persons and a land area of 94.2 square miles, the town of Phelps' population density was 12.6 persons per square mile (Table 4-2). The town's population density is lower than that of all selected areas. Vilas County's population density is somewhat

higher at 20.4 persons per square mile, while the City of Eagle River is densely populated with 570.3 persons per square mile. The town has a very low population density in comparison to the state of Wisconsin which recorded a population density of 90.1 persons per square mile in 1990.

Table 4-2
Population Density
Town of Phelps and Selected Areas
1990

Geographic Area	Land Area (Square Miles)	Total Population	Persons Per Square Mile
Town of Phelps	94.2	1,187	12.6
City of Eagle River	2.4	1,324	570.3
Vilas County	866.6	17,707	20.4
State of Wisconsin	54,313.7	4,891,769	90.1

Source: 1990 U.S. Census Bureau, "Land Area, Population, and Density for States and Counties,"; Vilas County Resource and Conservation Needs.

4.2 Housing

The housing characteristics section of the plan is an important element of the comprehensive plan. The physical location of housing determines the location and cost of many public services and facilities. Also, housing characteristics are related to the social and economic conditions of the community's residents.

The information to be presented in this Section will provide town officials with information about the current housing stock, as well as identify significant changes which have occurred in the area of housing over the past years, and provide an analysis of housing needs.

Housing Supply

Table 4-3 provides information about the housing supply for the town of Phelps from 1980 to 1990, including the total number of housing units, year round housing units, seasonal/recreational units, occupancy status, and number of persons per household. In relation, Figure 4-2 provides a comparison of the growth of year-round housing units versus seasonal/recreational housing units from 1980 to 1990. Year round housing units include those units which are occupied and vacant year round (which includes those units either for sale or for rent). Seasonal/recreational units are defined as those housing units which are used for seasonal, recreational, occasional or other use.

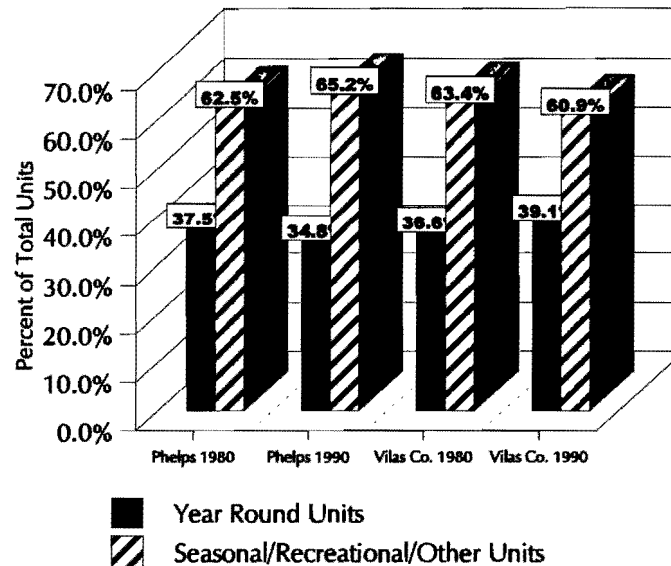
Table 4-3
Housing Supply
Town of Phelps
1980-1990

Housing	1980	1990	% Change 1980-1990
Total Units	1,278	1,436	12.4
Year Round Units	479	500	4.4
Occupied Units	425	457	7.5
Owner Occupied	332	375	13.0
Renter Occupied	93	82	-11.8
Vacant Year Round Units	54	43	-20.4
Seasonal/Recreational Units	799	936	17.1
Persons per Household	2.52	2.43	-3.6

Source: 1980 and 1990 U.S. Bureau of Census, STF3 and STF 1A.

The number of total housing units in the town increased from 1,278 units in 1980 to 1,436 units in 1990, an increase of 158 units or 12.4%. Year round housing units increased slightly from 479 units in 1980 to 500 units in 1990, or 4.4% (21 units), relative to the 12.4% increase in total units. Growth in seasonal and recreational units was the leading factor in the growth of the total number of housing units in the town of Phelps. There was an increase of 137 seasonal and recreational units, or 17.1%, from 799 units in 1980 to 936 units in 1990. Seasonal/recreational housing units accounted for 65.2% of Phelps' total housing supply in 1990. Decreases were experienced in the number of vacant year round units, which dropped 20.4%, and in renter occupied units which dropped 11.8%. The number of persons per occupied housing units has decreased slightly between 1980 and 1990, from 2.52 to 2.43, respectively.

Figure 4-2
Comparative Growth of Year-Round and Seasonal/Recreational Housing Units
Town of Phelps and Vilas County
1980-1990



Source: 1980 and 1990 U.S. Bureau of Census, STF3 and STF 1A.

Comparative Housing Value

A comparison of housing stock values in the town of Phelps and Vilas County for both 1980 and 1990 is presented in Table 4-4. The housing values are based on specified owner-occupied units only.

The majority of specified owner-occupied housing units in the town of Phelps were valued between \$25,000 and \$49,999 in 1980, and in 1990 the majority of housing units were valued between \$50,000 and \$99,999, indicating the town's housing stock has become better. The same scenario occurred in Vilas County, where by 1990, over 50% of the county's housing stock was valued between \$50,000 and \$99,999. Overall, both the town and county experienced an increase in the number of housing units at higher values, and a decrease in the number of housing units at lower values.

Table 4-4
Comparison of Value of Housing
Town of Phelps and Vilas County
1980-1990

Specified Owner-Occupied Units	Town of Phelps				Vilas County			
	1980		1990		1980		1990	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than 25,000	61	28.9	27	11.2	449	13.5	168	4.2
25,000 - 49,999	88	41.7	90	37.2	1,460	43.8	1,253	31.1
50,000 - 99,999	57	27.0	103	42.6	1,271	38.1	2,040	50.7
100,000 - 149,999	5	2.4	14	5.8	119	3.6	386	9.6
150,000 - 199,999	0	0.0	5	2.1	25	0.7	121	3.0
200,000 or more	0	0.0	3	1.2	12	0.4	56	1.4
Total	211	100.0	242	100.0	3,336	100.0	4,024	100.0
Median Value	N/A		\$51,100		N/A		\$58,900	

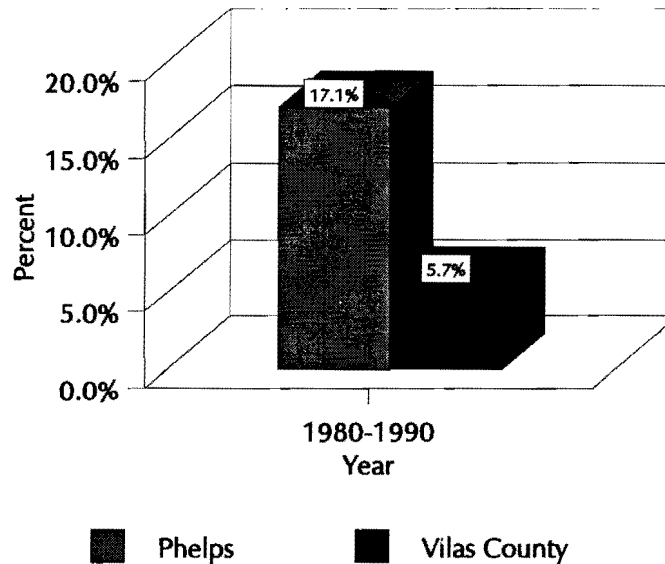
Source: 1980 and 1990 U.S. Bureau of Census, STF 1 and STF 1A.

Seasonal/Recreational Housing

The town of Phelps offers both residents and visitors recreational opportunities throughout the year with its abundance of natural resources, including vast amounts of lakes, rivers, forests, etc. Seasonal housing opportunities are among the amenities sought by the seasonal traveler. Figure 4-3 illustrates the growth experienced in seasonal/recreational housing from 1980 to 1990 in both the town of Phelps and Vilas County.

The town of Phelps saw an increase in seasonal/recreational housing units, from 799 units in 1980 to 936 units in 1990, a total of 137 additional units or 17.1%. This signifies an annual growth rate in seasonal housing of 1.71% between 1980 and 1990. Vilas County also experienced an increase in seasonal units, from 11,651 units in 1980 to 12,316 units in 1990. The number of seasonal housing units in the county's increased at a rate of 0.57% per year between 1980 and 1990. This was a lower rate than that experienced by the town of Phelps.

Figure 4-3
Comparative Growth of Seasonal/Recreational Housing Units
Town of Phelps & Vilas County
1980-1990



Source: 1980 and 1990 U.S. Bureau of Census, STF3 and STF 1A.

Building Permit Data

An additional measure used to assist in illustrating the growth in residential housing within the town of Phelps is the building permit activity. Table 4-5 displays the amount of building permit activity experienced by the town between 1991 and 1999, including the average building permit activity over this nine year period.

Table 4-5
Building Permit Activity
Town of Phelps
1991-1999

Year	New Homes	Remodel/ Additions	Mobile Homes	Garages & Accessory Bldgs.	Boat Houdses	Septic Permits	Commercial	Other	Total Permits
1991	23	18	4	33	5	37	1	8	129
1992	23	23	3	39	2	36	2	17	145
1993	24	26	2	46	2	39	0	13	152
1994	24	47	7	47	0	42	1	20	188
1995	23	38	7	54	0	47	0	27	196
1996	32	45	10	46	1	56	1	27	218
1997	30	46	1	39	1	36	2	17	172
1998	34	66	3	68	4	49	1	10	235
1999	20	N/A	--	N/A	N/A	N/A	N/A	N/A	N/A
Total	233	309	37	372	15	342	8	139	1435
Yearly Average*	25.9	38.6	4.6	46.5	1.9	42.8	1.0	17.4	179.4

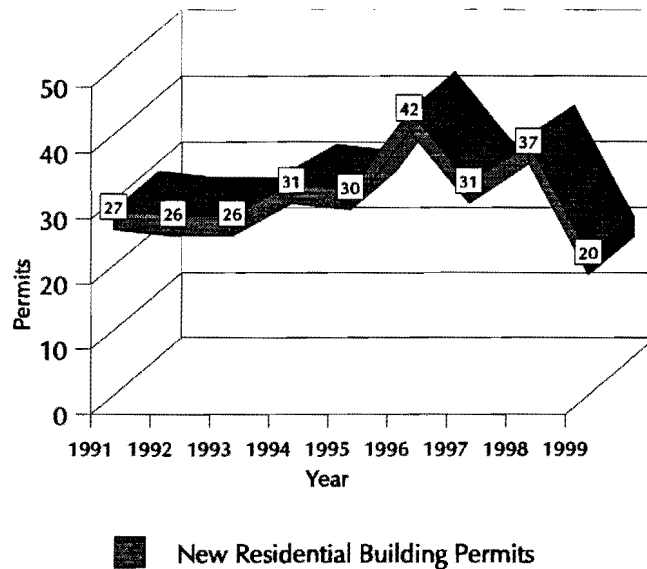
* Yearly average for new homes based on nine years, 1991-1999; yearly average for all other categories based on eight years, 1991-1998, as 1999 data was unavailable at the time of this writing.

Source: Vilas County Zoning Department

Overall, the town of Phelps has experienced steady growth in new residential development and other property improvements, increasing from a total of 129 building permits granted in 1991 to 235 permits granted in 1998, an increase of 82.1%. There was a slight decline in building permit activity from 1996 to 1997, decreasing from 218 permits to 172 permits, respectively. On the average, approximately 179 building permits were granted per year during this period.

An average of 31 new homes (including mobile homes) per year were added during the 9-year period from 1991 to 1999, with a high of 42 new homes and mobile homes added in 1996. In all, 270 housing units were added in the town of Phelps between 1991 and 1999, including 233 new homes and 37 mobile homes (see Figure 4-4).

Figure 4-4
Trend in New Residential Building Permits
Town of Phelps
1991-1999



Source: Vilas County Zoning Department

Equalized Value

The equalized valuation of real property for municipalities is a vital component to the provision of public facilities and services. The increase in real property for the town of Phelps provides additional tax revenues necessary to fund the public facilities and service programs for the community. Table 4-6 presents the growth in equalized valuation for the town of Phelps from 1991 to 1999 as recorded by the Wisconsin Department of Revenue.

**Table 4-6
Equalized Valuation
Town of Phelps
1991-1999**

Year	Residential		Commercial		Manufacturing		Agricultural		Forest		Other		Total \$	\$ Change/ Year	% Change/ Year
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%			
1991	58,478,900	82.7%	7,575,800	10.7%	207,700	0.3%	421,300	0.6%	2,972,600	4.2%	1,088,400	1.5%	70,744,700	--	--
1992	65,549,400	83.3%	8,503,100	10.8%	207,700	0.3%	435,600	0.6%	2,808,900	3.6%	1,211,800	1.5%	78,716,500	7,971,800	11.3%
1993	70,295,600	83.7%	8,526,800	10.2%	214,800	0.3%	433,200	0.5%	3,254,300	3.9%	1,210,900	1.4%	83,935,600	5,219,100	6.6%
1994	76,496,700	84.5%	8,526,800	9.4%	214,800	0.2%	468,700	0.5%	3,514,300	3.9%	1,289,000	1.4%	90,510,300	6,574,700	7.8%
1995	97,419,700	86.7%	8,513,100	7.6%	214,800	0.2%	500,100	0.4%	3,853,200	3.4%	1,848,400	1.6%	112,349,300	21,839,000	24.1%
1996	104,803,800	87.4%	8,537,000	7.1%	214,800	0.2%	370,100	0.3%	4,936,800	4.1%	1,074,400	0.9%	119,936,900	7,587,600	6.8%
1997	115,958,400	87.5%	9,003,300	6.8%	190,300	0.1%	370,100	0.3%	5,835,800	4.4%	1,126,300	0.9%	132,484,200	12,547,300	10.5%
1998	135,151,100	86.9%	11,066,600	7.1%	0	0.0%	348,600	0.2%	7,716,900	5.0%	1,175,700	0.8%	155,458,900	22,974,700	17.3%
1999	169,203,500	87.9%	12,737,800	6.6%	0	0.0%	336,500	0.2%	8,875,100	4.6%	1,268,200	0.7%	192,421,100	36,962,200	23.8%

*Other includes swamp, waste, and other.

Source: Wisconsin Department of Revenue Statement of Merged Equalized Values 1991-1999.

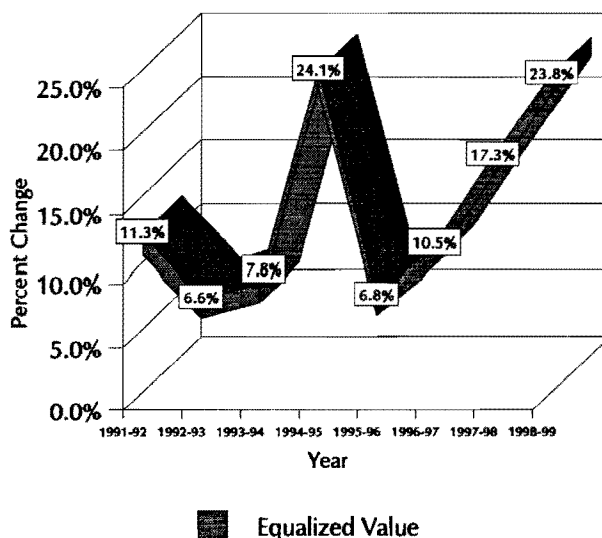
Since 1991, the town of Phelps has experienced an increase in the value of residential property, from \$50.7 million in 1991 to \$192.4 million in 1999, an increase of 172%. Residential property grew from 82.7% of the total equalized value for the town of Phelps in 1991 to 87.9 percent of the total equalized value in 1999.

Forest property values increased significantly between 1991 and 1999 rising from approximately \$3 million to \$9 million. However, in terms of the proportional value of the total equalized valuation of the town, forest land remained rather stable around 4%. The increase in valuation of forest land is a trend statewide as the demand for forested property has been on the increase driving the market value for such property up significantly.

Commercial property value decreased from 10.7% of the total equalized value in 1991 to 6.6% in 1999. Similarly, the manufacturing, agricultural and other property sectors also experienced decreases in their proportional value of the total between 1991 and 1999. "Other" property includes areas of swamp and waste land.

The overall percent change per year in the equalized valuation for the town of Phelps is presented in Figure 4-5, for the period from 1991 to 1999. The town has experienced consistent growth in equalized valuation between 1991 and 1999, with the largest increases recorded from 1994 to 1995 at 24.1% and 1998-1999 at 23.8%. These peaks are attributed primarily to the excessive growth in residential development during these time periods.

Figure 4-5
Percent Change in Equalized Value
Town of Phelps
1991-1999



Source: Wisconsin Department of Revenue Statement of Merged Equalized Values 1991-1999.

Housing Profile Summary

Between 1980 and 1990 the town of Phelps experienced an increase of 158 total housing units, or 12.4% growth. However, only 21 of the additional housing units were used as year-round units. The additional 137 housing units were seasonal/recreational units. This information indicates the town is a popular tourist destination. The number of persons per household for the town decline from 2.52 persons per household in 1980 to 2.43 in 1990.

The value of housing in the town has increased overall between 1980 and 1990, with the largest increase experienced in housing units valued between \$50,000 and \$99,999, and a significant decrease in the number of units valued at \$25,000 or less.

The town of Phelps has experienced growth in the number of seasonal and recreational housing units, which between 1980 and 1990 increased 17.1%, an annual growth rate of 1.71% of these units. Vilas County as a whole also experienced growth in seasonal and recreational housing units during this period at a rate of 0.57% per year, which is not as great as the growth experienced within the town.

Recent building permit activity data provides an indication of the growth experienced within the town since the 1990 U.S. Census. This data indicates that the town has experienced continued growth in residential development and other property improvements between 1991 and 1999, with a slight decline in permit activity in 1997. During the period from 1991 to 1999, 270 housing units were added to the town, including 233 new homes and 37 mobile homes. This is an average of 31 additional housing units per year.

Phelps has experienced continuous growth in the equalized valuation of the town with yearly increases ranging from 6.6% to 24.1% between 1991 and 1999. This information supports the town's strength to provide potential future services.

4.3 Economic Profile

Important to the planning process for an area is the economic characteristics and resources. These characteristics generally include: civilian labor force characteristics, comparative employment growth, employment by industry, comparative unemployment rates, and commuting patterns. Assessment of these characteristics provides insight into the historical and current economic situation in the planning area, thereby providing direction for the planning area to expand its economic potential. (Additional economic characteristics are included in Appendix 4-1.)

Civilian Labor Force

The civilian labor force consists of those persons age 16 and over which are currently employed or seeking employment, excluding persons in the armed forces. Shifts in the age and gender characteristics of residents, seasonal changes, and employment opportunities can all cause fluctuations in the number of persons in the labor force. Table 4-7 identifies the characteristics of the town of Phelps' labor force in both 1980 and 1990.

Table 4-7
Labor Force Characteristics
Town of Phelps
1980-1990

Employment Status	1980				1990			
	Males	Females	Total	% of Total*	Males	Females	Total	% of Total
In Labor Force	268	196	464	50.6	257	255	512	54.8
Armed Forces	0	0	0	0.0	0	0	0	0.0
Civilian	268	196	464	50.6	257	255	512	54.8
Employed	223	173	396	85.3	234	242	476	93.0
Unemployed	45	23	68	14.7	23	13	36	7.0
Not in Labor Force	183	270	453	49.4	192	231	423	45.2
Total	451	466	917	100	449	486	935	100

* Percentage of employed and unemployed is based on the total number of persons *in the labor force*, not the total of those in the labor force and not in the labor force.

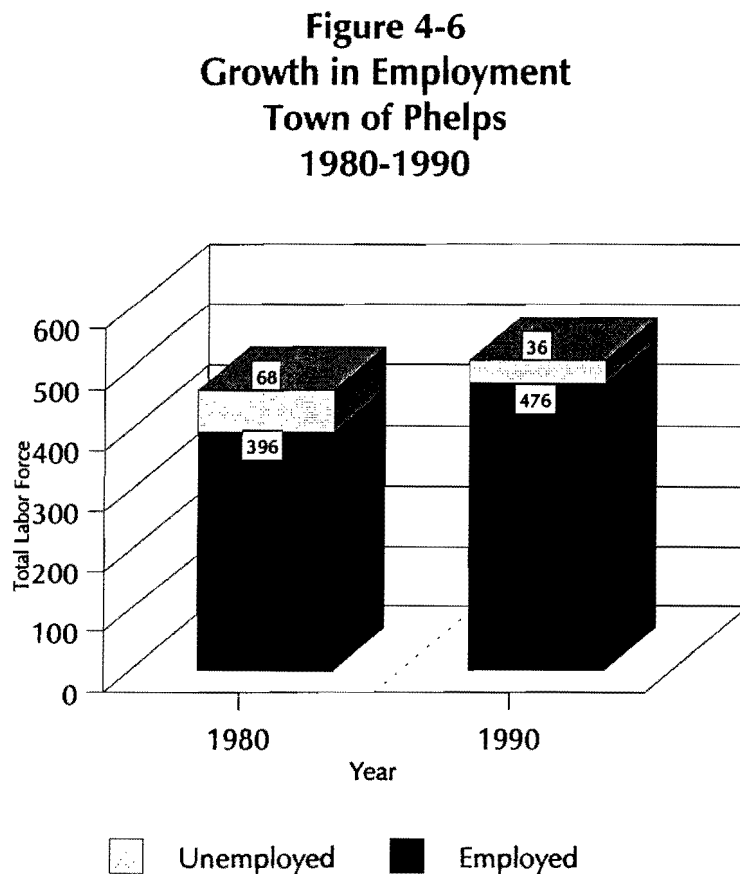
Source: 1980 and 1990 U.S. Census of Population and Housing, STF 3.

As shown in Table 4-7, participation in the town of Phelps' labor force grew slightly from 50.6% in 1980 to 54.8% in 1990. In 1980, there was a considerably greater amount of males participating in the labor force than females, 268 and 196, respectively. However, in 1990, there was an almost equal distribution of males and females participating in the labor force, with 257 males and 255 females. The percentage of those in the labor force who were unemployed decreased by one-half from 14.7% in 1980 to 7.0% in 1990. These trends indicate that the economic base of the town of Phelps has grown stronger between 1980 and 1990.

Growth in Employment

Figure 4-6 illustrates the employment growth trends for the town of Phelps for 1980 and 1990.

There has been an apparent increase in the number of persons in the civilian labor force which are employed. Figure 4-6 clearly displays the positive employment trends experienced by the town of Phelps from 1980 to 1990.

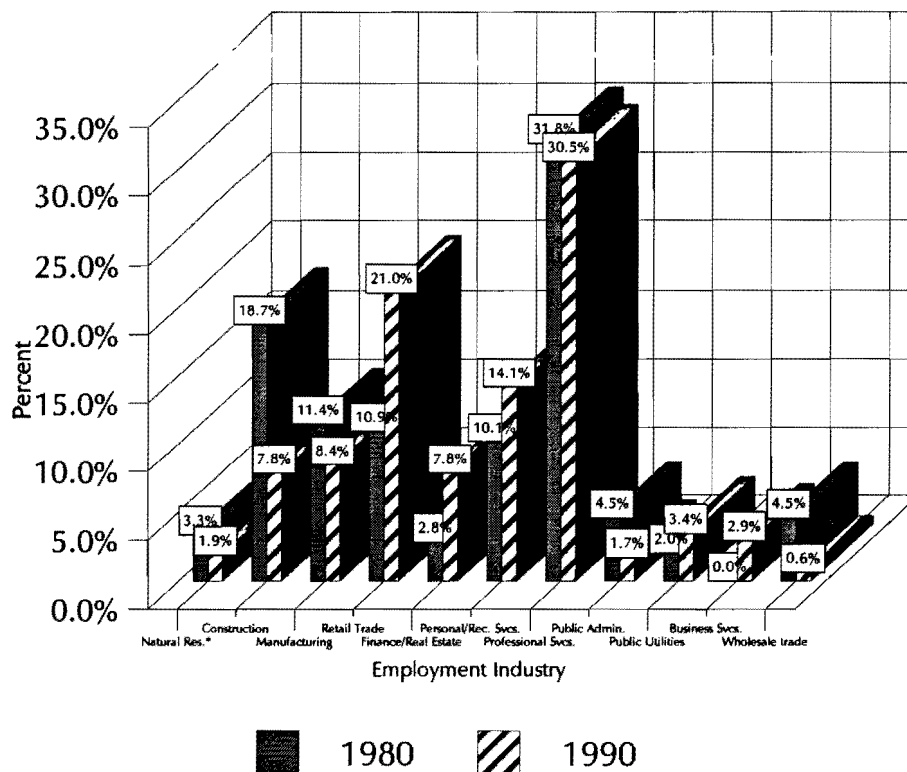


Source: 1980 and 1990 U.S. Census of Population and Housing, STF 3.

Employment by Industry

The employment by industry within an area illustrates the structure of the economy. Historically, the state of Wisconsin has had high concentrations of employment in the manufacturing sector of the economy. Recent trends show a decrease in the concentration of employment in the manufacturing industry, and increasing levels of employment in the service industry. Figure 4-7 provides the employment distribution by industry for the town of Phelps for both 1980 and 1990.

Figure 4-7
Employment by Industry
Town of Phelps
1980-1990

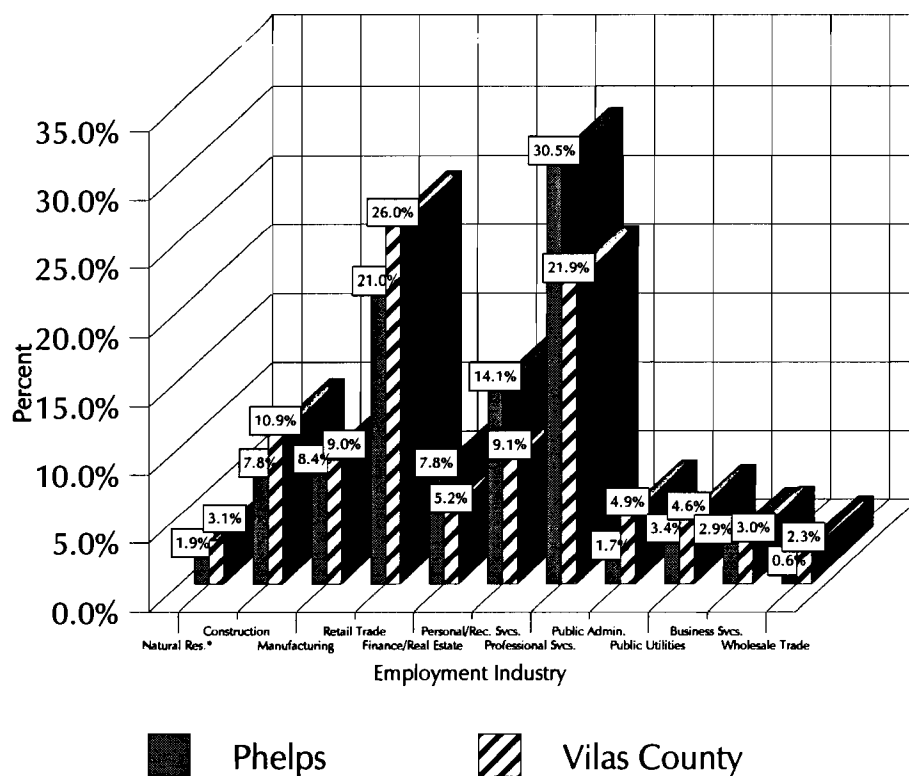


*Natural resources includes agriculture, forestry, fisheries, and mining.
 Source: 1980 and 1990 U.S. Census of Population and Housing, STF 3.

As indicated in the figure, the largest concentration of employment by industry for the town of Phelps in both 1980 and 1990 was experienced in professional and related services, comprising 31.8% and 30.5%, respectively. The second largest employment industry changed from construction in 1980 comprising 18.7% of the total employment base, to retail trade in 1990 comprising 21.0%. The retail trade industry experienced a 132.6% increase in employment between 1980 and 1990. The greatest losses of employment between 1980 and 1990 occurred in the wholesale trade industry, decreasing 83.3%, and in public administration and construction, which decreased 55.6% and 50.0%, respectively.

Figure 4-8 presents a comparison of employment by industry between the town of Phelps and Vilas County for 1990.

Figure 4-8
Employment by Industry Comparison
Town of Phelps and Vilas County
1990



Source: 1990 U.S. Census of Population and Housing, STF 3.

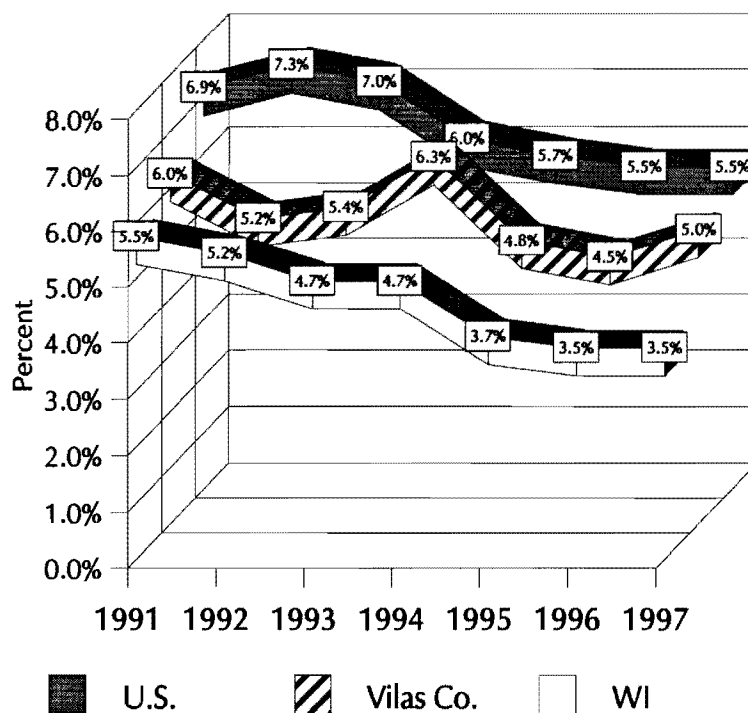
*Natural resources including agriculture, forestry, fisheries, and mining.

The town of Phelps and Vilas County share a rather similar distribution of employment within the major industries. However, professional and related service industries comprise the greatest proportion of employment in the town of Phelps with 30.5%, and in Vilas County the greatest proportion of employment is in the retail trade industry at 26.0%. Professional and related services ranked second highest in Vilas County at 21.9%, while retail trade ranked second in the town of Phelps. The remaining industries share similar levels of employment in the town of Phelps and Vilas County.

Comparative Unemployment Rates

The unemployment rate is an indication of the relative health and stability of the economy. Important to the analysis of the town of Phelps as a portion of Vilas County, is the comparative unemployment rates of Vilas County, the state of Wisconsin, and the United States. Figure 4-9 compares the unemployment rates for these areas for the years 1991 through 1997.

Figure 4-9
Unemployment Rate Comparison
U.S., Wisconsin, and Vilas County
1991-1997



Source: Wisconsin Department of Workforce Development, Division of Workforce Excellence, Bureau of Workforce Information, Vilas County Workforce Profile, July, 1999.

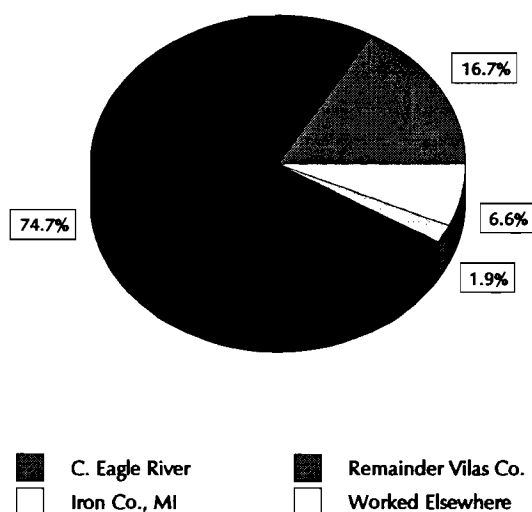
The national trend in unemployment has followed a steady decline from 1991 to 1997 decreasing from 6.9% to 5.5% following a slight increase from 1991 to 1992. The state of Wisconsin has remained well below the national average unemployment rate, and dropped to a rate less than 4.0% in 1995, 1996 and 1997. Vilas County has also remained well below the national average unemployment rate, with the exception of 1994, but has been consistently higher than or equivalent to the unemployment rate of the state. The unemployment rate of Vilas County has

fluctuated from year to year, reaching a high of 6.3% in 1994, then decreasing to a low of 4.5% in 1996.

Commuting Patterns

Figure 4-10 identifies the where residents of the town of Phelps commute to for employment opportunities. Vilas County was the location of business and industry where over 90% of the town's residents commuted to for employment in 1990, including 16.7% finding employment in the City of Eagle River and 74.7% working throughout the remainder of the county. The next highest employment destination was Iron County, Michigan, employing 1.9 % of Phelps's working residents. The remaining residents commute to destinations in Langlade, Forest and Oneida counties, and to Michigan or elsewhere for employment.

Figure 4-10
Location of Workplace
Town of Phelps
1990



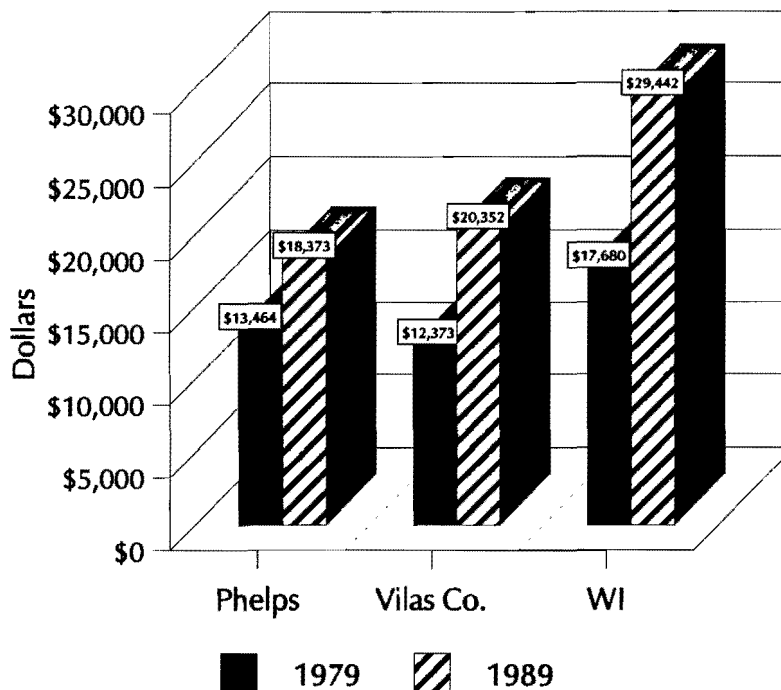
Source: Wisconsin Department of Administration, Wisconsin Workers' County of Residence and Place of Work, January 1994.

Income Characteristics

The median annual household income in the town of Phelps in both 1979 and 1989 was comparable to that of Vilas County, but lower than that of the state of Wisconsin (see Figure 4-11). The town's median household income rose from \$13,464 in 1979 to \$18,373 in 1989, an

increase of 36.5%, while the county's rose from \$12,373 in 1979 to \$20,352 in 1989, an increase of 64.5%. The median household income for the state overall increased 66.5%, from \$17,680 in 1979 to \$29,442 in 1989.

Figure 4-11
Median Annual Household Income
Town of Phelps, Vilas County & Wisconsin
1979 and 1989



Source: 1980 and 1990 U.S. Census of Population and Housing, STF 3.

Economic Profile Summary

The town of Phelps has experienced positive changes in many aspects of its economic potential. Participation in the civilian labor force grew from 50.6% in 1980 to 54.8% in 1990. In addition, unemployment of labor force participants fell from 14.7% in 1980 to 7.0% in 1990.

The Professional and Related Services sector remained the largest concentration of employment for the town of Phelps in both 1980 and 1990. The second largest employment industry changed from construction in 1980 to retail trade in 1990. In Vilas County, the greatest proportion of employment is in the retail trade industry, followed by professional and related services.

The location of the town of Phelps within Vilas County also supports positive economic trends as unemployment rates for the county have remained well below the national average from 1992 to 1997, though slightly greater than the state's unemployment rates. The lowest unemployment rate in the county during this time period was experienced in 1997, with an unemployment rate of 4.5%.

The majority of employed persons in the town of Phelps traveled within Vilas County for employment in 1990, including approximately 17% traveling to Eagle River and 75% elsewhere in the county. Only a small percentage travel outside of the county and/or the state.

Median income within the town increased between 1980 and 1990 from \$13,464 to \$18,373, however remained lower than that in both the county and state.

5 Public Facilities and Services

This section of the report considers the range of facilities and services currently provided within the town of Phelps. Based upon the subsequent inventory, deficiencies and opportunities will be identified, and recommendations will be made relative to future town needs.

The facilities and services inventoried include: administrative facilities/services, schools, protective services (police, fire, rescue), public buildings, quasi-public buildings, parks and open space, solid waste management/recycling, communication and power facilities, public sewer accommodations, and public water supply. Map 5-1 identifies the location of the existing community facilities within the town of Phelps.

5.1 Administrative Facilities/Services

The town of Phelps' administrative facilities/town offices are housed in the Phelps town hall which is located on Town Hall Road. This building includes 760 sq. ft. for meetings, 108 sq. ft. for administrative functions, and the Phelps Public Library. The building was constructed in 1968.

The town has four full-time employees, including one foreman and three crew members, which perform all of the town's maintenance. Part-time town employees include the clerk, and seasonal maintenance assistance in the fall to help prepare for the winter. The town utilizes WTAS Perfect Office computer software to assist in completing town business.

The town board meets the second Monday of every month at 7:00 p.m. at the town hall. The board consists of three members which serve two year terms.

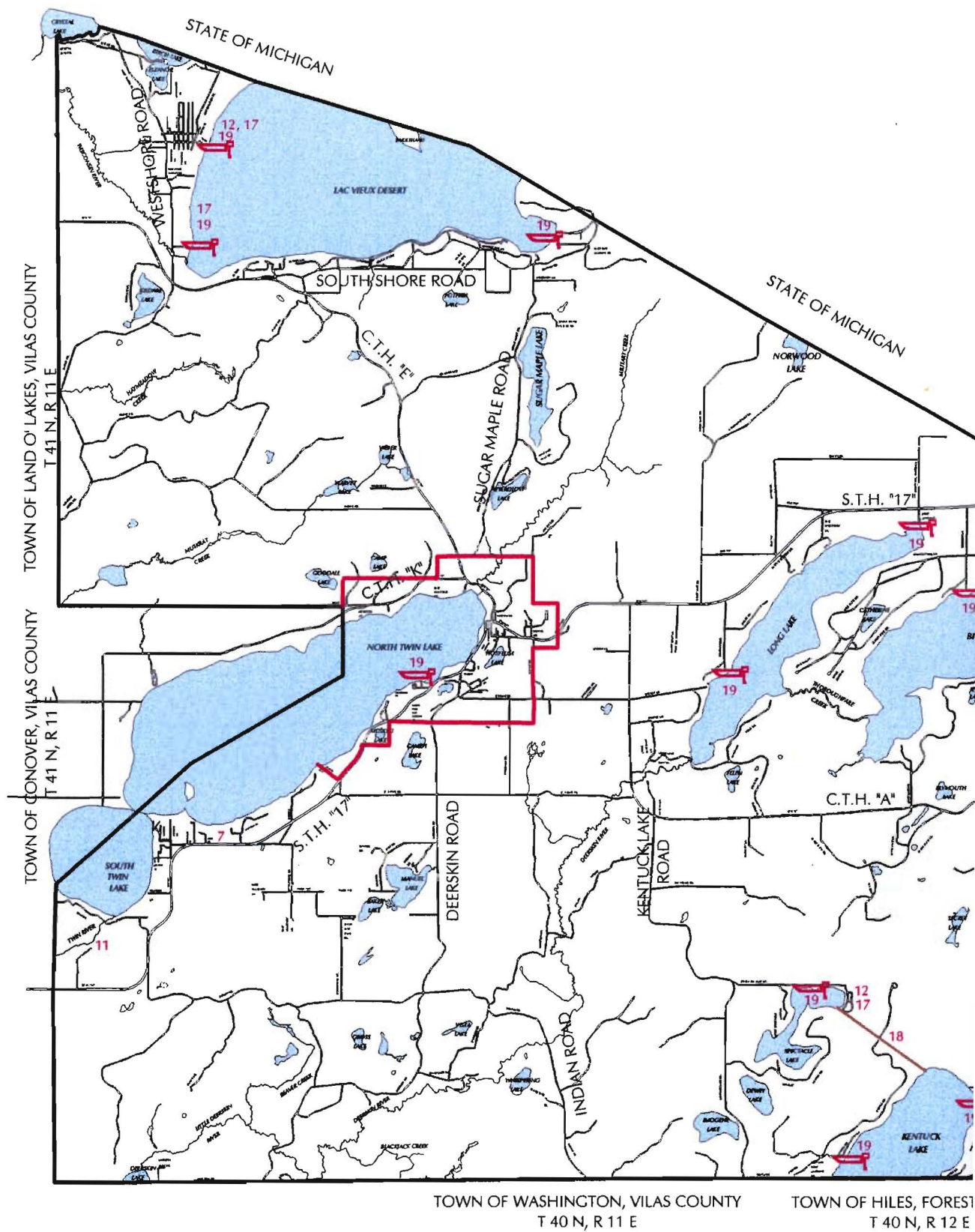
Under the town board, the following committees exist which oversee the various functions of the town:

Park Commission

This board controls all parks and boat landings within the town. Park projects which are currently in progress include the major development of Wavering Park and the acquisition of downtown waterfront land for future park development.

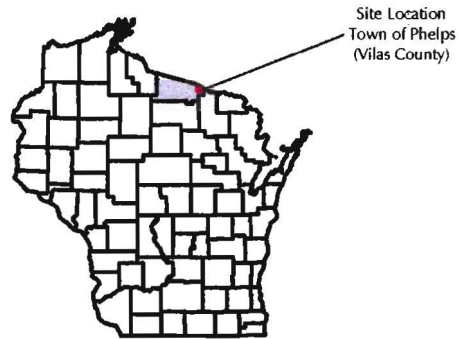
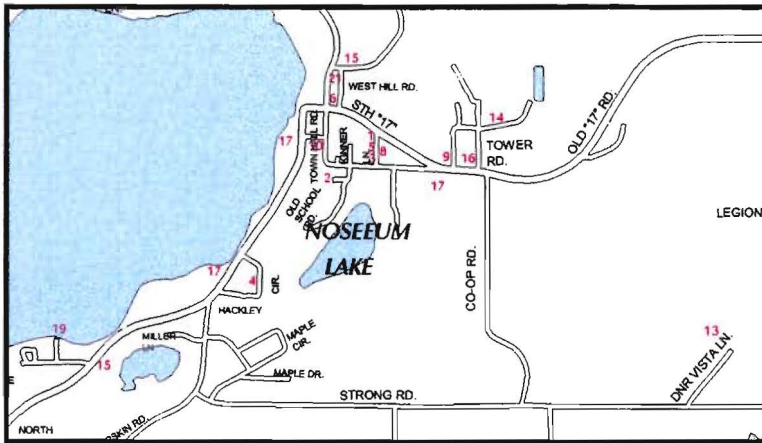
Phelps Sanitary Board

The sanitary board controls water and sewer service within the sanitary district. The board oversees continual system updates are performed.



MAP 5-1 COMMUNITY FACILITIES AND SERVICES

Town of Phelps Vilas County, Wisconsin



State of Wisconsin

Key

- 1 Phelps Town Hall
- 2 Phelps School District No. 1 Facility
- 3 Fire Station
- 4 Medical Facilities (including Northwoods Medical Center)
- 5 Town Shop
- 6 Post Office
- 7 Twin Lakes Bible Church
- 8 St. Mary's Catholic Church
- 9 St. John's Lutheran Church
- 10 Phelps Congregational Church
- 11 Camp Birch Knoll
- 12 Other Camps and Campgrounds (Private & Public)
- 13 Solid Waste Disposal and/or Recycling Site(s)
- 14 Wastewater Treatment Facility(ies)
- 15 Public Water Supply System Facilities (Well 1 & 2)
- 16 Cemetery(ies)
- 17 All Park and Recreation Areas
- 18 Recreation Trails
- 19 Water Access Sites
- 20 Bank

Sanitary District Boundary

Town Border

Surface Water

Roads

This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only.

Source: Vilas County, 1997

0 3000 6000 9000 12000 15000 Feet



M:\97P024\ap\phelps_3.apr January 27, 1999 KPK1

TOWN OF ALVIN, FOREST COUNTY
T 41 N, R 13 E

DUNTY

Chamber of Commerce

This is a committee which was created to promote recreation/tourism and business within Phelps. The chamber holds an annual Independence Day celebration and also an annual musky tournament. A recent accomplishment of the chamber is the development of a website to promote tourism via electronic information exchange.

Women's Club

The Women's Club is dedicated to the betterment of the community of Phelps. The major projects of the club include providing financial support to the town's library, educational scholarship funds, and providing funds for other civic projects. The club holds fund-raisers to collect monies for these purposes. The two primary fund-raisers sponsored by the club include the Trash and Treasure sale and the Spaghetti Dinner, which have been held annually for the past 20 years and three years, respectively.

Phelps Community Development Corp.

The primary goal of this organization is to create an environment which will encourage the town board, the town's people, and the community as a whole, to progressively upgrade/revitalize the community's physical assets and spirit into a healthy and prosperous place to live. The objective of the Community Development Corporation is to achieve this goal in a planned manner, providing the leadership that is required. Recent projects initiated by the Community Development Corporation include the revitalization of the downtown waterfront which is currently underway, and the upgrade of the power system which is scheduled to take place within the next year.

The town does not have any joint service agreements with any other communities in terms of administrative functions.

Currently, the town hall does not meet the needs required by the town. An account has been established by the town to save money for the purpose of constructing a community center, which will also serve as the location of the town's administrative offices.

5.2 Schools

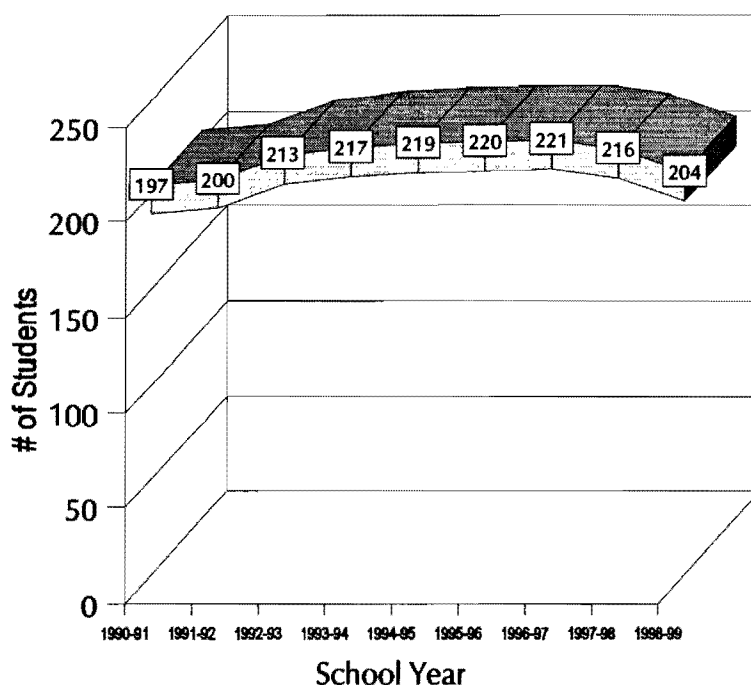
Educational facilities for the town of Phelps are provided by Phelps School District No. 1. Grades Kindergarten-12 are all located in one facility, which is located on Old School Road in the town of Phelps. The school is relatively small and has small class sizes. General remarks about the Phelps School District include the following: high comparative test scores, distance learning lab (member of Nicolet Distance Education Network), Internet access, elementary and high school computer labs, cable and satellite connections, and building computer networks.

The school was originally constructed in 1938, with additions completed in 1978 and again in 1996. In 1996, the 1938 and 1978 portions of the facility were remodeled, and an addition was made which included a commons area, kitchen, gymnasium, wood shop, metal shop, drafting room, elevator, stairwells and locker rooms. Upon completion of the additions, the school

increased to a current size of 82,884 sq. ft., and can accommodate approximately 300 students. The school employs 22 full-time teachers and 10 full to part-time support staff.

Figure 5-1 provides enrollment figures for Phelps School District No. 1 from 1990-91 through 1998-99.

**Figure 5-1
Student Enrollment
Phelps School District No. 1
1990-91 - 1998-99**

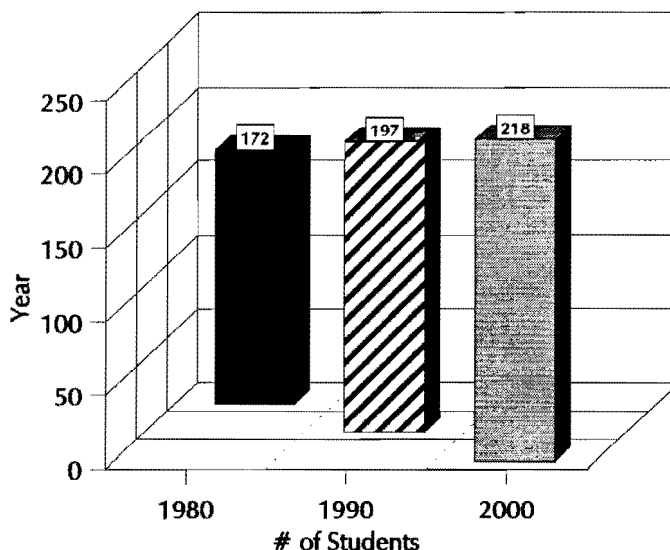


Source: Phelps School District No. 1 (Enrollment taken on the third Friday in September, the annual membership day for schools statewide).

As indicated by Figure 5-1, student enrollment in Phelps School District No.1 has been relatively consistent between the 1990-91 and 1998-99 school years, with an average enrollment of 212 students. Enrollment increased gradually, almost leveling off, reaching a high of 221 students in the 1996-97 school year. The 1997-98 school year marked the first drop in enrollment experienced by the district in at least eight years, which continued into the 1998-99 school year. The four largest classes in the district are in the high school. Recent trends show higher numbers graduating high school, while smaller numbers enrolling in kindergarten; the reason for the recent decline in enrollment can primarily be attributed to this trend.

Figure 5-2 depicts student enrollment trends and projections for the school district from 1980 to the year 2000.

Figure 5-2
Phelps School District No. 1
Student Enrollment Trends and Projections
1980 - 2000



Source: Phelps School District No. 1

Historical data indicates there were 172 students enrolled in Phelps School District No. 1 in 1980, which then increased to 197 students in 1990 for an increase in enrollment of 14.5% over the 10 year period. It is projected that in the year 2000, student enrollment will be approximately 218 students, an increase of 10.7% from the enrollment in 1990. The year 2000 student enrollment projection of 218 students is inconsistent with the recent enrollments experienced by the school district whereby the number of students has been declining in the past two school years. However, an increase in school enrollment is expected as more growth in the area is anticipated with the large development occurring between Sand and Long Lakes and the opening of a foundry. In addition, a trend which has been experienced throughout the northwoods is that of entrepreneurs moving there and running business out of their homes with the use of computers and fax machines. This trend is expected to continue as technological advances continue to be made.

In addition to providing the town's educational facilities, the school building also serves various functions for the general public. The commons area is utilized by the town for various meetings

and programs, the weight room is open for use, open gym is provided for the public, and people may also walk in the gym in the morning before the school day begins.

The town does not have any plans for the expansion of its existing school facility, nor does it have plans to construct a new facility. The current facility provides ample room to accommodate current and future enrollments. However, the school's library needs to be expanded.

5.3 Protective Services

Protective services include the police, fire and rescue services which are provided to the town.

Police Protection

Police protection services for the town are provided by the Vilas County Sheriff's Department which is located in the city of Eagle River. In addition to the county's services, the town of Phelps has a part-time Town Constable with limited enforcement power.

Fire Protection

The town's fire services are provided by the Phelps Volunteer Fire Department which is located on Town Hall Road. There are 25 volunteers which staff the department; there are no full-time employees. Table 5-1 lists the number of calls per year the department has received over the past five years.

**Table 5-1
Town of Phelps
Number of Calls Per Year Received by Fire Department
1993-1997**

	1993	1994	1995	1996	1997
Calls Received	14	23	23	24	28

Source: Phelps Volunteer Fire Department.

As indicated by Table 5-1, the number of calls to the town's fire department has gradually increased between 1993 and 1997. Overall, the number of calls received by the department increased by 14 calls, or 100%, between 1993 and 1997.

The adequacy of fire protection in the town is evaluated by the Insurance Service Office (ISO) through the use of the Grading Schedule for Municipal Fire Protection. The schedule provides criteria to be used by insurance grading engineers in classifying the fire defenses and physical conditions of municipalities. Gradings obtained under the schedule are used throughout the United States in establishing base rates for fire insurance. The grading is obtained by ISO based

upon their analysis of several components of fire protection including fire department equipment, alarm systems, water supply system, fire prevention programs, building construction, and distance of potential hazard areas from a fire station. In rating a community, the areas of evaluation are assigned a numerical rating of 1 to 10, with 1 representing the best protection and 10 representing an essentially unprotected community. Class 9 usually indicates a community without an effective public water supply or hydrant protection. The town of Phelps' current ISO rating is 8. The Class 8 rating applies to areas within six miles of the fire station.

Phelps has a joint fire service agreement with the town of Stambaugh, Michigan, and is involved in mutual aid agreements with Vilas County, Oneida County and Forest County. The mutual aid agreements are written contracts which state that the departments will assist one another, if needed, at no cost.

Rescue/First Responder

Rescue services and full medical facility services for the town of Phelps are provided by Northwoods Medical Center which is located on Highway 17 in Phelps. Northwoods Medical Center also provides these services to the towns of Conover and Alvin. There are a total of 21 employees which include 10 employees in Phelps and 11 in Conover, and there is also one part-time EMS coordinator.

The following table lists the number of emergency calls the Northwoods Medical Center has received per year in the past five years:

Table 5-2
Emergency Calls per Year to Northwoods Medical Center
1993-1997

	1993	1994	1995	1996	1997
Calls Received	285	261	318	421	343

Source: Northwoods Medical Center

The number of calls per year to the Northwoods Medical Center has experienced significant fluctuations between 1993 and 1997. Overall however, the number of calls appears to be generally increasing.

The only immediate need identified by the Medical Center is that the Phelps ambulance is in need of body work if it is going to be used for another few years, as rust is apparent on all door hinges and crevices.

5.4 Public Buildings

All of the town's public buildings are located adjacent one another on Town Hall Road. These buildings include the town hall and office, town shop and the fire hall. The town hall and town office building is described in detail under Administrative Facilities/Services. The town shop is used to house/store road equipment and other town of Phelps equipment, and also to perform maintenance on the equipment. The shop was constructed in 1956, and is close to lacking adequate space to house all of the town's maintenance equipment. The fire hall, which was constructed in 1982, is used to house fire equipment, hold fire department meetings, and serves as a place for civic organizations to hold public functions. The fire hall consists of 4,800 sq ft, and similar to the town shop, is running out of room to house its respective equipment.

The Phelps E. Ellis Library is housed with the town hall and offices, and occupies 2,120 square feet. The current hours of operation of the library are: Monday, 12:00 p.m. - 5:00 p.m., Wednesday, 12:00 p.m. - 5:00 p.m., Friday, 10:00 a.m. - 5:00 p.m., and Saturday, 9:00 a.m. - 12:00 p.m.

Postal service is provided by the Phelps Post Office which is located on Highway E.

5.5 Quasi-Public Facilities

There are four churches located in the town. These include Twin Lakes Bible Church located on STH 17, St. Mary's Catholic Church located on Town Hall Road, St. John's Lutheran Church located on STH 17, and the Phelps Congregational Church which is also located on STH 17.

Camp Birch Knoll, which is a summer camp for girls and also other special recreational-oriented camp programs, is located on Dam Lane within the town of Phelps.

Several civic organizations exist in the community including the following: Lion's Club, Women's Club, Snowmobile Club, Phelps Chamber of Commerce, Phelps Community Development Corp., American Legion, Youth Sports, Recreation Assn., Hospital Auxiliary, American Legion Auxiliary, Boy Scouts and Girl Scouts.

5.6 Parks and Open Space

A variety of park and recreational facilities are located within the town of Phelps. In 1995, the town of Phelps developed a Five-year Outdoor Recreation Plan (see Appendix 5-1) which identifies and analyzes the existing town park and recreational facilities. The plan also provides recommendations for facility improvements, expansion, and land acquisition for both existing and proposed town recreational facilities.

The following provides an overview of the existing park and recreational facilities located within the town of Phelps, as identified in the town of Phelps Five-Year Outdoor Recreation Plan -

1995. For detailed information and facility recommendations, the outdoor recreation plan should be referenced (see Appendix 5-1).

Existing Park Facilities

Wavering Park

Wavering Park is a 42 acre town-owned park facility which is located on the south side of STH 17 approximately ¼ mile east of the downtown. This park is the focal point of community-based outdoor recreation activities, and of the efforts of the Phelps Park Commission. Major facilities at the park include a baseball diamond, softball diamond, two tennis courts, two basketball courts, a regulation-size soccer field, and sand volleyball court, among a variety of other recreational facilities for all ages in the community.

Wavering Park's site design was studied and mapped in greater detail in the *Wavering Park Concept Plan* report in July of 1998, which may be reviewed at the town hall.

North Twin Beach

This park includes a small beach area (approximately ¼ acre) which is located on North Twin Lake across from the Northwoods Hospital facility. It is used by both area residents, visitors and by the Northwoods Medical Facility. The property is leased to the town by C.M. Christiansen Co. The primary focus of the beach is for swimming and passive recreation, and the site includes picnic tables and grills.

Boat Access Locations

Downtown North Twin Access

The Downtown North Twin Access is located between the main downtown commercial area and North Twin Lake. The site is approximately ⅓ acre and is leased to the town by C.M. Christiansen Co.. The park provides boaters with docking access to the town's business district, provides a view shed to North Twin Lake, and provides a green space area for residents and visitors alike to enjoy the lakeshore. The site includes picnic tables and grills, and a public pier.

North Twin Lake Boat Access

This ⅓ acre boat access on North Twin Lake is heavily used by anglers and water recreation enthusiasts. The site includes restroom facilities and a picnic table.

Smoky Lake Boat Access

This town-maintained boat access is approximately ⅓ acre in size, and provides a picnic shelter, picnic tables and grills in addition to boat landing facilities.

Long Lake Boat Access

The Long Lake Boat Access is only approximately ⅓ acre in size, and is maintained by the town. In addition to boat launching facilities, the site has a picnic shelter, picnic table and grill.

Other Town-Maintained Boat Accesses

In addition to the town-maintained boat accesses identified above, the town also maintains a 1/8 acre boat access on the west shore of Kentuck Lake, and sand boat/canoe and fishing access on Manuel Lake.

Overall, there are approximately 14 boat access sites within the town which are maintained by the WDNR, Nicolet National Forest or by the town. Of these sites, 13 are located on lakes while one is located on the Deerskin River.

Trails

Bicycle Trails/Routes

Currently, the town does not contain any signed or mapped bicycle road routes or off-road trails.

Cross-Country Ski Trail

A three-mile public ski trail through the Nicolet National Forest exists within the town of Phelps, which is maintained under a Memorandum of Understanding with the U.S. Forest Service. This system is linked to the Afterglow Resort area, which is also open to the public.

Snowmobile Trails

Approximately 22 miles of state-funded snowmobile trails exist in the town which are maintained by the local snowmobile club. These trails link with over 600 miles of groomed and marked snowmobile trails throughout Vilas County, and also connect with trails in the upper peninsula of Michigan and other trails in Wisconsin.

Other Recreational Facilities

Rifle Range

There is a rifle range located on 40 acres of land located by Long Lake which features 25, 50, and 100-yard target shooting ranges and other facilities.

Proposed Park/Recreational Facilities

Nosseum Lake Park

Currently, this park does not exist, however there has been interest in developing this park by the hospital for retirees. It is possible that a combination nature and hiking trail could link this park to Wavering Park, and a handicapped-accessible fishing pier could be installed on the lakeshore.

Recreation Vehicle Park

Approximately 38 acres of town-owned land is under consideration to be developed as a recreation vehicle park. The site was originally targeted for industrial park space. This site could include developments such as snowmobile trail access, hiking/biking trail linking to other trails (such as Wavering Park), skiing/tobogganing hill, picnic area, horse trails, etc.

Federal/State Owned Facilities

In addition to the recreational facilities discussed previously, there are also numerous recreational sites located throughout the town which are owned and maintained by U.S Forest Service (Nicolet National Forest), including boat access sites, campgrounds, trails, and picnic areas.

5.7 Solid Waste Management/Recycling

Refuse collection service is provided to town residents by the Rhinelander Disposal Service, Inc. The landfill site which services Phelps is the Highway G Landfill and Waste Processing Facility which is located in Eagle River. The landfill was opened in 1990 and has a projected life of 20 years, therefore it should be viable through the year 2010.

In addition to providing refuse collection to the town of Phelps, Rhinelander Disposal Service, Inc. also collects recyclable materials. There is also a drop off and transfer site provided by the DNR, located on Vista Lane in Phelps. In the winter, the transfer site is open Saturdays from 8:00 a.m. - 4:00 p.m., and summer hours are Tuesdays from 12:00 p.m. - 4:00 p.m. and Saturdays from 8:00 a.m. - 4:00 p.m. The town is pleased with the program's performance.

5.8 Communication and Power Facilities

This section includes electric power, natural gas, telephone and cable services which are provided to the town of Phelps.

The town's electrical power services are provided by Wisconsin Electric Power Company. Natural gas lines were recently installed in 1998, with service provided by Wisconsin Electric Power Company. Basic telephone service is provided by GTE North, while fiber optics/digital microwave network service in the area is provided by Cellular One. Cable service is available to a portion of town residents through Upper Peninsula Communications, Inc.

5.9 Public Sewer Accommodations

The town of Phelps is equipped with public sanitary sewer. The Phelps Sanitary District No 1 was designated and its first commissioners appointed in 1969. Today, the Phelps Sanitary District No. 1 serves 90% of the community. The system is managed by two operators, including one full-time operator and one part-time operator.

A wastewater treatment pond, lab and air-blower room were constructed in 1972, and are located along STH 17. Due to construction problems, the remaining components of the sewer system were not completed until 1973. In 1996, the wastewater treatment facility was upgraded from its original design which consisted of one pond which was split into two cells by a baffle, into a new pond containing new aeration-mixing units. The upgrade of the Phelps Sanitary District No. 11 resulted in the following:

- ♦ Increase in loading from 3.84 million gallons to 6 million gallons.
- ♦ Storage days in the summer went from 33.4 days to 52.2 days, and winter storage days went from 47.4 days to 74 days.
- ♦ Surface area increased from 1.57 acres to 2.5 acres.
- ♦ Aeration requirements went from 100 cubic feet per minute to 520 cubic feet per minute.

Overall, the plant's maximum design capacity is 115,000 gpd which is capable of handling the peak winter load to the treatment system of 81,000 gpd, and the peak summer load of 115,000 gpd. The average load is 60,000 gpd.

The 1996 upgrade also included the construction of a new lab and office were constructed, while the old lab and blower rooms were converted to house the large aeration blowers for the new treatment system. As a result of the upgrade, the system is designed to be viable for the community through the year 2014. In addition, the town owns several acres which would allow for additional future expansion of the wastewater treatment system.

The wastewater treatment system operators identified that an electric generator and a gas/electric trash pump should be obtained for the facility.

5.10 Public Water Supply

The Phelps Sanitary District No. 1 also supplies the town with a public water supply system. In 1969, the town decided to construct its public sewer and water systems at the same time. The town's original well (Well No 1) is located along STH 17, as is the water stand pipe; both of these components were constructed in 1972. The remaining elements of the water supply system were not completed until 1973 due to construction problems.

The water system, like the sewer system, was recently upgraded in 1996. A new well was constructed at the request of the Wisconsin Department of Natural Resources to serve as a back-up to Well No. 1. This well is located on Deerskin Road. The town's water stand pipe provides an overhead storage capacity of 50,000 gallons. The system's capacity is 100,000 gpd, while average consumption is 50,000 gpd, and peak consumption is 115,000 gpd.

A wellhead protection plan was adopted by the Phelps Sanitary District No. 11 to ensure safe drinking water for future generations. Phelps was one of the first governmental units in Wisconsin to adopt a wellhead protection plan.

The sanitary district identified that a small electric generator should be obtained for the facility.

5.11 Public Facilities and Services Recommendations

The following public facilities and services recommendations were developed based on the information contained in this section of the plan, as well as from discussions with town officials and other town representatives.

- ♦ The town should continue to invest in new public works equipment and maintain existing equipment in order to adequately, and economically, perform required duties.
- ♦ The town should continue to maintain and upgrade its wastewater treatment plant facility as continued residential and commercial development increases the public utility demands within the town. Adequate space is available for future wastewater treatment plant expansion.
- ♦ The town's sewer and water administration, procedures, and policies needs to be reviewed relative to permitted development within the sanitary district. The district should provide *both* sewer and water to new development within the district.
- ♦ The town should continue to allocate funds for the construction of a community center which will serve various town needs, including the need for expanded administrative offices.
- ♦ The town should continue to monitor the effectiveness of the Phelps school building in meeting the educational needs of the community. If the need arises, the town should undertake expanding the existing facility or constructing a new facility.
- ♦ The town should evaluate the need to expand the school's library and proceed with any additions as needed.
- ♦ The town should continue its joint fire service agreement with the town of Stambaugh, Michigan, as well as its involvement in mutual aid agreements with Vilas, Oneida and Forest counties.
- ♦ The town should evaluate the need to expand/rebuild its town shop to meet the needs of providing adequate housing for the town's maintenance equipment.
- ♦ The town should evaluate the need to expand its fire hall to afford adequate space for the storage of its fire service and related equipment.

- ♦ The town should continue to maintain and upgrade its public water supply system facilities. The town should continue its Wellhead Protection Plan and make amendments as needed.
- ♦ The town should periodically update its five year outdoor recreation plan to ensure the recreational needs of the community are being met.

6 Transportation

A transportation system supports the growing economy of a community, which provides opportunities for its residents and visitors. These opportunities enhance the community's standard of living. Of particular importance in smaller communities is the local road system, since it generally has the greatest direct input and investment by the local government.

A well-designed road system can result in many benefits and long term cost savings for a community. Being an integral aspect of the town, it plays a major role in the efficiency, safety and overall desirability of the community as a place to live and work.

6.1 Existing Road Systems

In analyzing the road system, several aspects and factors should be examined to discern possible shortcomings as well as plan for future needs. Analysis of traffic patterns through the examination of the road system, review of traffic counts, study of accident reports, discussion with individuals at the local, county and state levels, and finally, a field survey of the roads can assist in providing possible recommendations relevant to the system.

To begin the analysis for the town of Phelps, an examination of the existing configuration or pattern of the road system is in order. As Map 6-1 depicts, the town's road configuration does not follow the typical rural roadway pattern of primarily north-south and east-west roads. Rather, the abundance of natural features within the town, including its many lakes, creeks, and forested areas tend to direct roadway patterns.

The road system is composed of three levels of government jurisdiction. These include the town system encompassing the local roads, the county system of trunk highways, and the state and federal highway systems. Map 6-1 identifies the existing road patterns as well as the jurisdictional layout. The map illustration identifies that the local roads comprise the greatest mileage. However, in terms of the functional role and the amount of traffic carried by each type, STH 17 is the most significant.

6.2 Classifications

The three levels of jurisdictional roadway, state and federal, county, and local, often times are considered to approximate the functional classification of roads used for planning and design purposes. The division of roadways into the functional classes, arterials and collectors, represents a breakdown relative to the principal service the roadway is intended to serve. The functional classification is generally the basis of funding, constructing, and maintaining the various levels of roadway. This classification for rural areas often results in the use of the state and federal roads as arterials, while county and town roads serve as collectors within the system (see Map 6-1).

Although the definitions are somewhat formal, they attempt to explain the principal role of each type of roadway. While the four classes appear to be set apart, the sharp distinctions are actually more subtle. For discussion and planning purposes, however, these more specific definitions are applied.

Principal Arterial (Freeways)

The principal function is to provide the most efficient movement for relatively large volumes of traffic at increased speeds. Movement to and from other road facilities is limited to controlled interchanges. Regional movement of traffic contributes an increasing portion of the traffic counts.

Minor Arterial

The principal function is to provide efficient traffic movement for larger volumes of traffic. Little or no direct access is strived for with non-local destinations comprising a major portion of the traffic.

Major Collector

The principal function is to provide an intermediary link between efficient movement of arterials and accessibility of local roadways. They serve to funnel or collect traffic from local roadways to arterials. More efficiency of movement is strived for in favor of accessibility.

Minor Collector (Local Roadways)

The principal function is to provide traffic with access to and from property. It is the grass roots classification where accessibility for vehicles and pedestrians is emphasized and efficiency of movement is secondary.

As previously noted, these functional classifications are generally equated with the jurisdictional divisions. In the more developed, larger urban communities, this relationship may not be as rigid, whereas the local community constructs and maintains all classes of the roadway system. In the typical rural transportation system, however, the jurisdictional and functional classifications maintain a closer relationship. The greatest emphasis of traffic in rural areas is generally on non-local efficient movement whereas local access is secondary due to relatively low population densities.

Based on the qualifications of the roadway classifications, the town of Phelps has the service of 8 major collectors, including STH 17, CTH A, CTH E, CTH K, Kentuck Lake Road, Deerskin Road, Anvil Lake Road, and a portion of Indian Road. As presented in Map 6-1, STH 17 dissects the town into a northern half and a southern half, and follows the shoreline of the south side of North Twin Lake and South Twin Lake, ultimately connecting with USH 45. This highway provides for larger volumes of traffic entering the central portion of the town and entering or leaving Wisconsin/Michigan. CTH A is located in the southern portion of the town south of Big Sand Lake and Long Lake, and provides access to STH 17 in the central portion of the town. CTH E, located in the northern portion of the town, provides a link between STH 17 in

the central portion of Phelps and USH 45/STH 32 in the town of Land O'Lakes. CTH K provides direct access to and from the west to CTH E, which then allows access to STH 17. CTH K runs north of North Twin Lake, and stretches across the mid-section of Vilas County. There are also some local roads which are classified as major collectors, all of which are located in the southern portion of the town. Kentucky Lake Road provides access to and from CTH A, and runs in a north - south direction. West of Kentucky Lake Road, the link of Deerskin Road, to Indian Road, to Anvil Lake Road is considered to be a major collector route. This route connects provides access to STH 17 near North Twin Lake by means of Deerskin Road.

In addition to the major collectors, there are three local roadways which are considered minor collectors, including W. Shore Road, S. Shore Road, and Sugar Maple Road, all of which are located in the northern portion of the Town, and linked together. West Shore Road is located along the west shore of lake Lac Vieux Desert and connects with CTH E, which then provides access to S. Shore Road which travels along the southern shore of the lake. Sugar Maple Road connects with S. Shore Road and provides access to CTH E in the central portion of town.

To further assist in the classification of roads within the roadway system, the following table identifies the basic criteria used to determine the functional class of each road within a community. (See Table 6-1, Year 2010 Rural Area Highway Functional Classification Criteria.)

Table 6-1
Year 2010 Rural Area Highway Functional Classification Criteria

Functional Classification	Traffic Volume	<u>Basic Criteria</u> Must meet any two of these or the parenthetical traffic volume alone			Supplemental Criteria or must meet both of these plus 90% of traffic volume
		Population Service	Land Use Service	Spacing	
Principal Arterial	>3,000	Connect places 50,000 with other places 50,000. Connect places 5,000 with places 50,000.	Provide access to 12 large attractions	Maximum 30 miles	None for Principal Arterials
Minor Arterial	>1,000	Connect places 5,000 with other places 5,000. Connect places 1,000 with places 5,000 or with principal arterials	Serve all traffic generating activities with an annual visitation 300,000 if not served by a principal arterial	Maximum 30 miles	1. Alternative population connection. 2. Major river crossing restrictive topography.
Major Collector	>500 (>2,000)	Connect places 1,000 with other places 1,000. Connect places 500 with places 1,000 or higher function route. Connect places 500 with other places 500 or higher function route. Connect places 100 with places 500 or higher function route.	Land use service index ≥ 16 . Provides access to smaller attractions (i.e., airports, schools factories, parks, etc.)	Maximum 10 miles	1. Alternate population connection. 2. Major river crossing. 3. Restrictive topography. 4. Interchange with freeway. 5. Parallel to a principal arterial.
Minor Collector	>200 (>800)	Connect places 100 with other places 100. Connect places 50 with places 100 or higher function route.	Land use service index ≥ 8 . Serves same type of attractions as major collector.	Maximum 10 miles	1. Alternative population connection. 2. One major river crossing. 3. Restrictive topography. 4. Interchange with freeway. 5. Parallel to a principal arterial.

Source: Wisconsin Department of Transportation.

6.3 Traffic Counts

Annual average daily traffic counts (ADT's) for 1987, 1989, 1992 and 1995 for seven locations in Phelps are presented in Table 6-2. In addition, the change in annual average daily traffic counts from 1987 to 1995 for these locations can be reviewed on Map 6-1.

Table 6-2
Annual Average Daily Traffic Counts
Town of Phelps
1987-1995

	Location	1987	1989	1992	1995	% Change 1987-1995	# Change 1987-1995
A	STH 17 @ eastern town boundary	280*	140	350	320	14.29	40
B	State Hwy 17 east of intersection with CTH A	620*	380	680	680	9.68	60
C	CTH A south of intersection with State Hwy 17	460	240	450	930	102.17	470
D	STH 17 between CTH's A and E	1120*	810	970	1200	7.14	80
E	CTH E between STH 17 and CTH K	1100	610	1210	1100	0.00	0
F	CTH E north of intersection with CTH K	790	490	880	550	-30.38	-240
G	STH 17 southwest of intersection with CTH E	1140*	970	1450	1600	40.35	460

Source: Wisconsin Dept. of Transportation, Average Daily Traffic Counts, 1987-1995.

* Denotes 1986 ADT data

As expected, the two highest daily traffic volumes in all four reference years are found on the minor arterial STH 17 at locations G (1,600) and D (1,200). The major collectors CTH E and CTH A also experienced high volumes of traffic, with CTH E having the third greatest volume of motor vehicles at location E (1,100), and CTH A at location C following close behind (930). The largest increase in volume from 1987 to 1995 occurred along CTH A, recording an additional 470 motor vehicles. A large increase was also recorded along STH 17 southwest of its intersection with CTH E, experiencing an increase of 460 motor vehicles. One location, CTH E

just north of its intersection with CTH K, experienced a significant decrease in volume of 240 motor vehicles. This was the only location in which the traffic volume decreased between 1987 and 1995.

Projected annual average daily traffic counts were not available for this area.

6.4 Accident Locations

To further analyze the town of Phelps' road system, the frequency, location of, and causes of motor vehicle accidents can be used to identify problem areas. The frequency of motor vehicle accidents tend to correlate directly with traffic volumes, however the design and condition of the road may also have an impact on the accident rate. Table 6-3, Motor Vehicle Accident Summary, displays the number of accidents for roads which have experienced greater than four motor vehicle accidents from 1991 to 1997 as reported by the Department of Motor Vehicles. The "other" category includes all other accidents from locations that individually had three or fewer motor vehicle accidents from 1991 to 1997. Figure 6-1 identifies the overall percentage of motor vehicle accidents experienced within Phelps between 1991 and 1997 by location.

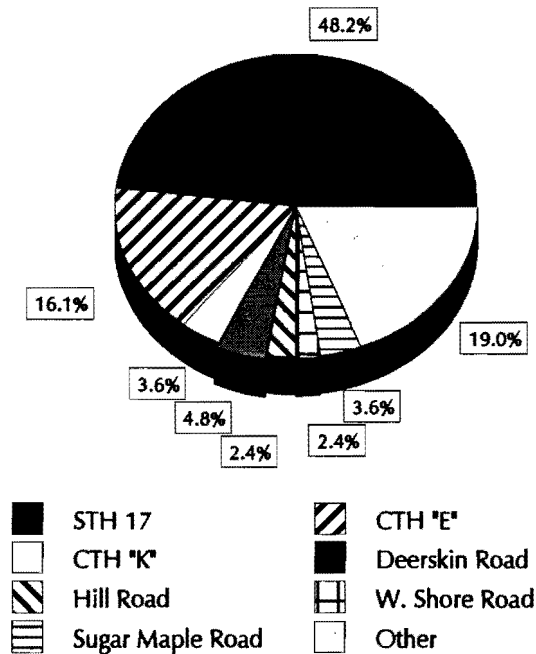
Table 6-3
Motor Vehicle Accident Summary
Town of Phelps
1991-1997

Accident Location	1991	1992	1993	1994	1995	1996	1997	Total
STH 17	14	14	8	4	19	15	7	81
CTH E	6	2	2	2	3	6	6	27
CTH K	1	1	0	1	2	1	0	6
Deerskin Rd	0	0	2	1	1	3	1	8
Hill Rd	0	1	1	0	0	1	1	4
W. Shore Rd	0	0	1	0	1	0	2	4
Sugar Maple Rd	0	2	0	0	1	2	1	6
Other*	0	3	10	2	6	5	6	32
Total	21	23	24	10	33	33	24	168

* Note: Denotes all locations with three or less accidents from 1991-1997.

Source: Wisconsin Department of Transportation, Accident Listing, 1991-1997.

Figure 6-1
Percent of Total Accidents by Location
Town of Phelps
1991-1997



Source: Wisconsin Department of Transportation, Accident Listing, 1991-1997.

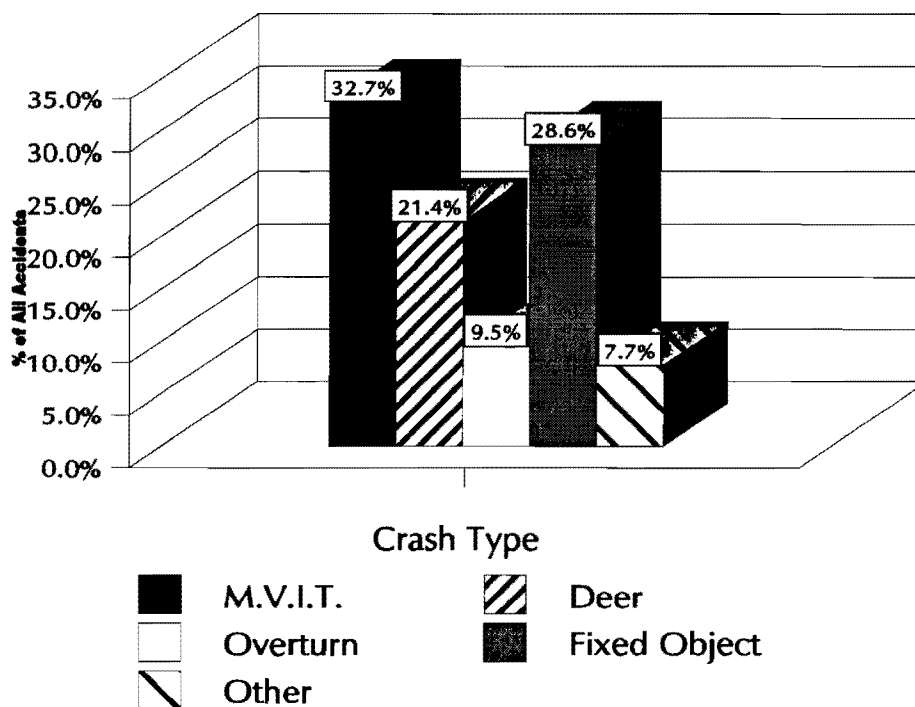
The town of Phelps had 168 motor vehicle accidents from 1991 to 1997. As expected, the roadways with the greatest traffic volumes (STH 17 and CTH E) also had the greatest number of motor vehicle accidents. STH 17 alone experienced 48.2% of the total number of motor vehicle accidents between 1991 and 1997. CTH E was the location of 16.1% of the town's motor vehicle accidents during this same period. The only county trunk highway in the town that did not experience at least four accidents from 1991 to 1997 was CTH A. As for local roads, the greatest number of traffic accidents occurred on Deerskin Road, which was the location of 8 accidents, followed by Sugar Maple Road which experienced 6 accidents, and Hill Road and W. Shore Road which each had 6 accidents reported.

In addition to analyzing the number of crashes per roadway, a review of the trends for intersection motor vehicle accidents can provide insight to problem areas within the town roadway system. Map 6-1 displays the locations of intersection accidents from 1991-1997. The intersections are classified by location and number of accidents, which range from one to four. The intersections of STH 17 and St. Louis Road, and Deerskin Road and Strong Road had the greatest number of accidents with four each during the period between 1991 and 1997. The intersection of CTH K and CTH E experienced three accidents, followed by a number of

intersection locations which had one or two accidents occur during this time frame. It should be understood however, that roadways with greater volumes of traffic have an increased risk of accidents, which is the case for the above mentioned roadways.

Further analysis of motor vehicle accidents by type of crash provides greater detail into the cause of motor vehicle accidents within the town of Phelps. Figure 6-2, Total Accidents by Crash Type, displays the types of crashes from 1991 to 1997.

Figure 6-2
Total Accidents by Crash Type
Town of Phelps
1991-1997

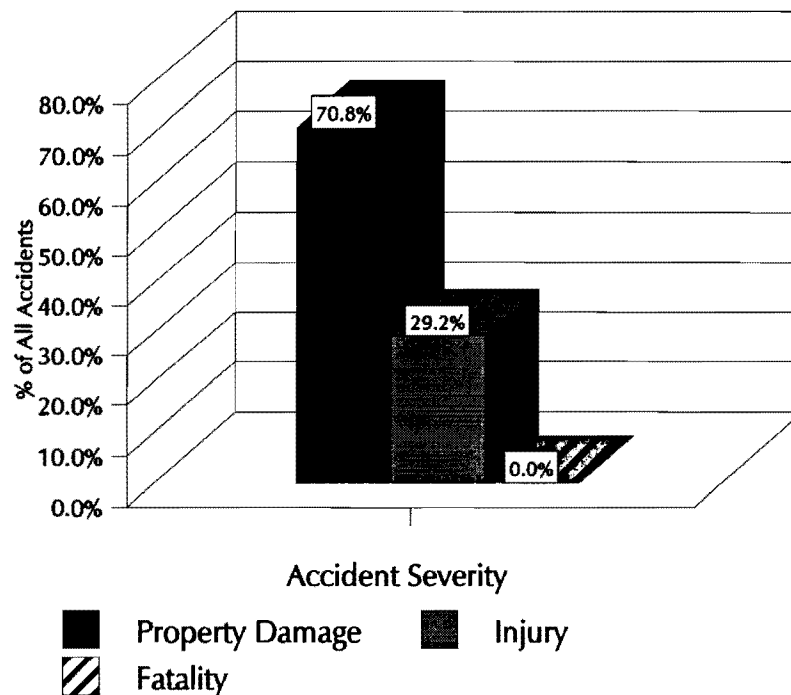


Source: Wisconsin Department of Transportation, Accident Listing, 1991-1997.

The figure presents that the greatest attributable cause, or type of crash, from 1991-1997 was Motor Vehicle in Transit (M.V.I.T.), comprising 32.7% of all accident types. The second most common crash type was fixed objects such as trees, ditches, utility poles, traffic sign posts, mailboxes, etc., accounting for 28.6% of all accidents, followed by deer which included 21.4% of all accidents in the town. Overturns comprised approximately 10.0 percent of all crashes in the town of Phelps, followed by "other" crashes such as objects on the road, objects not fixed, parked vehicles, other animals, etc., which included the remaining 7.7% of accidents in the town.

The severity of the accidents is also a concern in determining if roadway conditions are attributed to fatalities or injuries. Figure 6-3 displays the severity of all motor vehicle accidents from 1991 to 1997.

Figure 6-3
Severity of Motor Vehicle Accidents
Town of Phelps
1991-1997



Source: Wisconsin Department of Transportation, Accident Listing, 1991-1997.

The figure displays that the greatest portion of all accidents, with 70.8%, result in property damage to the vehicle(s) involved. Injuries occurred among 29.2% of all accidents from 1991 to 1997. There were no fatalities as a result of motor vehicle accidents within the town of Phelps between 1991 and 1997.

6.5 Existing Street Conditions

To assess the condition of the town's roadways, town board members conduct an annual "road workshop". The workshop consists of the board members performing a visual assessment of all the town roads, during which all repairs, maintenance, etc. that are observed to be needed are identified. After completion of the visual assessment, the board members reconvene at the town hall to prioritize the work to be completed based on their observations.

6.6 Air Transportation

Air passenger services available to the town of Phelps residents include the facilities in Land O'Lakes, Eagle River, and Rhinelander.

The Eagle River Regional Airport is located approximately 11 miles southwest of Phelps. This facility provides one commercial airline carrier - Trans North Aviation - which has various regional destinations. In addition to commercial services, the airport provides charter services, and facilities for private and corporate air transportation. There is fuel on the field for sale, including jet fuel, which is the primary source of income for the airport.

The Land O'Lakes Municipal Airport is located approximately eight miles northwest of Phelps. This airport provides general aviation charter services and has no scheduled flights. Charter services are available to destinations throughout the Midwest.

Commercial air service available to town of Phelps residents is the Rhinelander/Oneida County Airport located approximately 37 miles southwest of the town of Phelps. The airport provides two commercial airline carriers: Northwest Airlink and Great Lakes Aviation. These two commercial carriers offer commuter flights to three Midwest airports including those located in Detroit, Michigan; Minneapolis, Minnesota; and Chicago, Illinois. The total commercial passenger traffic for the Rhinelander/Oneida County Airport for 1997 was 70,000 persons. Airport administration estimates 1998 air traffic to reach or surpass 80,000 persons, and projects future flight volumes to continue to increase. Additional passenger services at the airport include private air charters through the Rhinelander Flying Service.

6.7 Rail Transportation

Railroad facilities do not exist in the town of Phelps, and such facilities are not located in close enough proximity to the town to make use of rail service. The nearest railroad is Wisconsin Central Limited located in Rhinelander, approximately 37 miles from the town.

6.8 Planned Transportation Improvements

State Highway Projects

The Wisconsin Department of Transportation indicated that to date, there are no proposed state highway improvements/projects upcoming within the town of Phelps.

On a general basis, however, the transportation district in which Phelps is included has allocated funds for district wide special pavement marking and bridge approach slabs to occur by the year 2003.

County Highway Projects

The Vilas County Highway Commission indicated that to date, there are no proposed county highway improvements/projects upcoming within the town of Phelps.

6.9 Transportation Recommendations

Based on the information presented in this chapter, several recommendations are provided to the town to improve its transportation system.

- ♦ The town should initiate a Pavement Management System, which is simply a Capital Improvement Program geared specifically to the town's roads. The implementation of a more "formalized" technique would allow for more effective pavement management. In addition, it would provide the town with a detailed, defensible document to assist in making informed decisions regarding road maintenance and repair. The pavement management system should include the following:
 - A detailed inventory and description of all the roads within the town.
 - A detailed surface condition survey of all the roads within the town.
 - Definition of the town's goals and objectives with respect to their road maintenance and repair.
 - Establishment of a long-term maintenance schedule which prioritizes road maintenance and repair needs based on condition evaluations.

The most vital element in a pavement management system is the process used to evaluate road conditions. A method of evaluating roadway conditions is the PASER (Pavement Surface Evaluation and Rating) system. PASER system manuals for both asphalt and gravel road surfaces can be obtained from:

Wisconsin Transportation Information Center UW-Madison
Room 741
432 North Lake Street
Madison, WI 53706
Phone: 800-442-4615

The town currently conducts an annual visual assessment of its roadways based on the judgement of the Board to set maintenance priorities. No type of formalized rating system is used. Implementation of the PASER system would allow the town to formalize roadway assessments to improve consistency and accuracy, therefore improving the credibility of recommended improvements and allowing for better planning and decision making.

Specifically, this type of system would allow the town to 1) select appropriate treatments for each road section, 2) evaluate road sections competing for immediate attention, 3) anticipate future deterioration and apply inexpensive maintenance options while they are still feasible, and 4) justify budgets for roadway improvements that are adequate to keep the roads in good condition so they will remain less expensive over the long term. An example of the PASER rating system is provided in Appendix 6-1, along with a discussion of the benefits of pavement management.

- ♦ The town should consider purchasing software to assist in estimating the costs of road construction/maintenance. A program called "PASERWARE" is available through the Wisconsin Department of Transportation which allows for the easy determination of estimated road construction/maintenance costs. The program works in conjunction with a completed PASER evaluation to calculate costs. For further information regarding this program, contact the Wisconsin Department of Transportation at the address provided above. A brief example of how PASERWARE is implemented is provided in Appendix 6-1.
- ♦ The town should consider expanding on-street parking along the STH 17, downtown business district to accommodate parking needs, especially for the demands experienced during the peak season. The town should also consider providing or coordinating off-street parking located to the rear of commercial buildings to accommodate for new development needs, as well as overflow from existing businesses, as recommended by the Downtown Concept Plan. Section 12, Downtown Development and Design, provides a more detailed discussion regarding parking accommodations in the downtown district.
- ♦ As Phelps continues to provide a pedestrian shopping environment, pedestrian linkages, i.e. sidewalks and trails, must be given equal precedence to roadways in development proposals.
- ♦ The town should consider incorporating pedestrian signage into its pedestrian trail system.
- ♦ The town should limit the number of driveway access points on local streets to improve traffic flow and maintain safety. When constructed, driveways should be adequately spaced to minimize vehicle conflict.
- ♦ The town should require traffic impact studies for large-scale developments which have the potential to create on-site and off-site traffic problems.

- ♦ The town should consider developing an official map to govern the locations of future streets within the town.
- ♦ The town of Phelps should ask to be placed on the public notification list of the District 7 Wisconsin Department of Transportation to have a more active role in long-range transportation planning and development in the area. This will be especially beneficial for future Downtown planning with regards to projects proposed for STH 17.

7.2 Topography and Drainage

The town of Phelps is located in the Northern Highland physiographic region of Wisconsin which has some of the highest elevations in the state. Elevations within the town range from approximately 1,660 feet above sea level in the southwestern portion of the town to 1,900 feet near the intersection of Boot Lake Road and Norwood Lake Road. Relief in the area is generally low, with most elevations being between 1,700 and 1,800 feet above sea level.

The landscape in Phelps includes drumlins and ground moraines, and is characterized by low, smoothly rounded, elongated, and oval ridges that are nearly level to moderately steep and are interspersed with long, narrow drainageways.

The primary source of drainage includes the town's numerous rivers and creeks, including the Wisconsin and Deerskin Rivers, and Kentuck, Elvoy, Brule, Military, Blackjack, Haymeadow and Muskrat Creeks. The Wisconsin River and its tributaries drain approximately 40% of the county, while the Kentuck, Elvoy, and Brule Creeks drain about 10% of the county. According to the Soil Survey of Vilas County, the secondary drainage system is rather poorly defined, and includes the town's numerous lakes which drain into the river systems through shallow, crooked drainageways. Glacial meltwater was unable to establish a system of deeper channels in the hummocky glacial topography of the area. In addition, many of the lakes do not have any outlets. However, the abundance of natural surface water features in the town is an asset as it attracts both tourists and residents.

7.3 Geology

As mentioned previously, the town of Phelps, like the rest of Vilas County, is located in the Northern Highland physiographic province; this province is characterized as a gently arched dome with crystalline rock below. In general, the geology of the area consists of glacial drift deposits which are underlain by igneous and metamorphic bedrock of the Precambrian Period (2,500 to 900 million years ago).

The surficial geology of the town of Phelps includes both stratified and unstratified glacial drift which were developed primarily during the various stages of glaciation of the last ice age. Stratified drift consists of outwash and ice-contact deposits which were laid down by meltwater during glacial stagnation. Within Phelps, stratified drift is located primarily in portions of the southern, northwestern, and central areas of the town occupying approximately one-half of the town's land. Unstratified drift consisting of ground moraine is located generally in the central, western and eastern portions of town. Ground moraine is composed of unsorted sandy clay till which was laid down directly by ice. The thickness of glacial drift, or the depth to bedrock, generally ranges from 0-240 feet, and tends to be thinnest in areas of ground moraine.

The bedrock geology of the town of Phelps is characterized by igneous and metamorphic rocks which are part of the Canadian Shield. More specifically, these rocks include Gneiss from the Archean age located in the southwest, and rocks from the Early Proterozoic age including

metasedimentary rocks which comprise the majority of the town, iron formations scattered throughout, and metavolcanic rocks in the northern region. The bedrock generally slopes to the south. Map 7-2 illustrates the bedrock geology of the town of Phelps.

7.4 Groundwater

The glacial drift which was described previously under the town's surficial geology is the only significant source of groundwater in the area. Within the town of Phelps, groundwater is obtained from sand and gravel aquifers located within the drift and either in or beneath till or clay. According to the United States Geological Survey of the Upper Wisconsin River Basin (1975), the groundwater within the basin is generally of good quality and the supply is adequate for domestic use.

In general, well depths within Phelps range from approximately 40 feet to 125 feet, with probable well yields of 5-50 gpm (gallons per minute). Groundwater is located approximately 10 to 40 feet below the land surface.

The groundwater in Phelps is generally between moderately and highly susceptible to contamination according to the Wisconsin Geological and Natural History Survey, 1989. There is risk of groundwater contamination in this area primarily because of shallow depth to groundwater and the high permeability of most of the subsurface materials. These characteristics increase the possibility that contaminants at the surface will percolate through the ground to contaminate groundwater. High concentrations of iron is a typical problem of groundwater throughout Vilas County, however this is not considered to be a health hazard.

Groundwater contamination can occur naturally, however is typically a result of land uses associated with modern society. The physical setting of an area usually determines how easily groundwater becomes contaminated if inadequate waste management or improper land uses occur.

7.5 Soil Conditions

Soil is composed of varying proportions of sand, gravel, silt, clay and organic material. The composition of a soil affects the specific properties of that soil. These properties must be evaluated prior to any development, as varying limitations exist for each soil.

The soils of the town of Phelps primarily result from glacial till, glacial outwash, or glaciolacustrine deposits, and a few formed from organic material. The effects of the last glacial period which are characteristic of the Northern Highlands Physiographic region are evident in the distinct soil variations which occur within relatively short distances within the town.

A detailed study of all the soils in Vilas County was developed by the U.S. Department of Agriculture, Soil Conservation Service. As part of that study, soils were identified in terms of both generalized soil associations, or predominant soil patterns, and specific detailed soils. Map 7-3 identifies the specific, detailed soils as they occur in the town of Phelps.

The following presents a list and description of the general soil associations included within the town of Phelps. It should be noted however, that these general descriptions are only guidelines and should be referred to as such.

- ♦ *Rubicon-Sayner-Karlin association:* Nearly level to very steep, excessively drained and somewhat excessively drained, sandy soils on uplands. These soils are suited for trees and therefore most are used as woodlands, while a few areas are used for crops and pasture. Areas with little slope are suited for residential development. Septic tank absorption fields function satisfactorily in these soils, however effluent can pollute groundwater because of the rapid or very rapid permeability of the soils. This association comprises only a small amount of the soils in Phelps, including the northwestern most corner of the town, and a portion in the southwest (near Deerskin River), and comprises approximately 42 percent of Vilas County's land area.
- ♦ *Padus-Pence association:* Nearly level to very steep, well drained, loamy soils on uplands. Similar to the Rubicon-Sayner-Karlin association, these soils are suited to trees and mostly used as woodlands, with a few areas used for crops and pasture. Areas with little slope are suited for residential development. Septic tank absorption fields function satisfactorily in these soils, however effluent can pollute groundwater because of the rapid or very rapid permeability of the soils. These soils are found scattered through the town comprising small portions in various areas including south of Lac Vieux Desert, around North Twin Lake, southwest of Big Sand Lake and Long Lake and in the east. Approximately 21 percent of the county's land area is made up of these soils.
- ♦ *Champion association:* Nearly level to moderately steep, moderately well drained, silty soils on uplands, specifically on prominent drumlins and glacial moraines. Most of the areas comprised of these soils are used as woodlands, and some are used for crops and pasture, however they are best suited to trees. Champion soils are poorly suited to residential development because of the seasonal high water table. These soils are present only in the eastern portion of Vilas County and primarily in the town of Phelps, comprising the majority of the town's soils. Small amounts of this soil association are also present in the towns of Land O'Lakes and Washington near their borders with Phelps. Only about eight percent of the county's total land area is underlain by this soil association.
- ♦ *Croswell-Dawson-Au Gres association:* Nearly level and gently sloping, moderately well drained, very poorly drained, and somewhat poorly drained, sandy and peaty

soils on flats and in upland drainageways and depressions. Again, most of these soils are used as woodlands, while a few areas are used for crops or pasture. Most areas of the Dawson soils support native wetland vegetation and are generally unsuited to trees, while the Croswell and Au Gres soils are suited to trees. The Croswell and Au Gres soils are poorly suited to residential development, and the Dawson soils are generally unsuited; the seasonal high water table is the primary limitation. This association comprises a portion of the soils in the northeast portion of the Town, and approximately eight percent of the soils county-wide.

Soils also determine, in part, the amount of rainfall/snowmelt and pollution which runs off to streams and lakes and how much infiltrates into the ground; this factor is highly considered in determining the susceptibility of an area to groundwater contamination. Low permeability soils, which consist of finer particles such as clay, silt and loam, allow rapid surface runoff and little infiltration; highly permeable soils allow rapid infiltration and little surface runoff and are characterized by larger soil particles containing higher percentages of sand and gravel. In general, the rate of permeability is related to the deposits from which the soils were derived. The majority of the town of Phelps experiences a medium rate of permeability, infiltrating at a rate of 0.8 to 2.5 inches per hour. Areas south of Big Sand Lake, and surrounding North Twin Lake have more rapid rates of permeability which are 2.5 to 5 inches per hour. The far northwest portion of the Town is highly permeable, infiltrating at a rate of 5 to 10 inches per hour, indicating very sandy soils. The rather rapid rate of infiltration throughout the Town is reflective of its rather high susceptibility to groundwater contamination.

7.6 Vegetation Types

The vegetation in the vicinity of the town of Phelps is reported to have historically been comprised primarily of mixed coniferous - deciduous forest (mesic), with some areas of wetland vegetation and brush.

The major coniferous - deciduous forest type covering the town of Phelps in the mid-1800's was hemlock, sugar maple, and yellow birch with mixtures of white pine and red pine. This was the largest and perhaps most characteristic forest formation in northern Wisconsin. It is sometimes referred to as the "hemlock - northern hardwood" or simply the "northern hardwood" forest.

A few areas of the town contained stands of coniferous pine forest, including red and white. Though it is commonly thought that most of northern Wisconsin was once covered by extensive pure stands of white and red pines, this forest type was actually extremely limited even before settlement. Some small scattered areas of the town, primarily in the north and east, contained wetland vegetation consisting of swamp conifers including white cedar, black spruce, tamarack and hemlock. Brush vegetation existed in a small area in the southwest portion of town.

Presently, both the species composition and relative proportion of presettlement forest types have been greatly altered by humans in the northern forest region. The mixed coniferous - deciduous forest types have primarily lost their coniferous component. Hemlock occurs sporadically in second-growth hardwood stands, but white pine is virtually absent in many areas and shows no sign of regeneration. The sugar maple has retained a dominant position, however yellow birch is much less common than it once was. Basswood and white ash are now usually the most important associates of sugar maple. The area is generally dominated by mixtures of sugar maple, basswood, hemlock, yellow birch, white ash, and American beech, while red oak and red maple are the most common minor associates to these stands.

Nicolet National Forest Vegetation

As mentioned previously, the Nicolet National Forest comprises 36,477.5 acres, or 52% of the town's total area.

Forest cover types of the Nicolet National Forest lands which are located within the town of Phelps are dominated by upland hardwoods, comprising over 44% of the forested land, followed by aspen which comprises approximately 11%. Red, white and jack pine comprise a total of 20% of the Nicolet National Forest Lands, including 7.7% red pine, 6.5% jack pine, and 4.8% white pine. A variety of other species each comprise a small percentage of the total forest land.

7.7 Watersheds and Basins

A watershed is an area of land in which water drains to a common point. In Wisconsin, watersheds vary in scale from major river systems to small creek drainage areas and typically range in size from 100 to 300 square miles. River basins encompass several watersheds. There are 32 river basins in Wisconsin which range in size from 500 to over 5,000 square miles.

The majority of the town of Phelps is included in the Upper Wisconsin River Northern Sub-Basin, of which two watersheds are contained within the town's boundaries, including the Deerskin River Watershed in the southwest, central and northeast, and the Tamarack/Pioneer River Watershed in the northwest (see Map 7-4, Water Feature Data Map). The most recent water quality management plan for the Upper Wisconsin River Northern Sub-Basin was published in October, 1996 by the WDNR. The plan was prepared to identify the sources of water quality problems and identify management objectives that the WDNR, communities, counties and other agencies should take to protect and improve the water resources of the Northern Sub-Basin. In addition, the southeastern portion of the town is included in the Upper Green Bay Basin, including the Brule River Watershed. The most recent water quality management plan for this basin was completed in January, 1993, by the WDNR.

The surface water features located in each of these watersheds, along with their descriptions and classifications, are depicted in the following section and are shown on Map 7-4.

7.8 Surface Water Features and Wetlands

The Soil Survey of Vilas County reported that Vilas County ranks second in the state in total acreage of surface water with 96,321 acres, of which approximately 98 percent is lakes and the remaining 2 percent is streams. In addition, the county ranks first in the state in total number of lakes with 1,327 (WDNR PUBL-FM-800 91). The town of Phelps contains 10,997 acres of surface water, comprising 11.4% of the county's total surface water acreage, and has 41 named lakes which comprise 3.1% of the county's total lakes. Overall, the surface water features within the town comprise approximately 15.8% of the town's total acreage.

The town of Phelps contains numerous natural surface water features, including rivers, streams, lakes and wetlands. This section discusses the characteristics of the major surface water features located within the town. In addition, the WDNR classifies major surface water resources into one of five classes, which will be identified for each major surface water feature within the town. These classifications allow water bodies of particular importance to be identified because of their unique resource values and water quality. Two classes which are represented by surface waters in the town of Phelps include 1) Outstanding Resource Waters (ORW) which have the highest quality water and fisheries in the state and are therefore deserving of special protection, and 2) Exceptional Resource Waters (ERW) which have excellent water quality and valued fisheries but receive or may receive wastewater discharges.

Rivers

Three river systems are pass through the town of Phelps including the Wisconsin River, Deerskin River, and Little Deerskin River.

Wisconsin River: The main stem of the Wisconsin River originates at Lac Vieux Desert in the northwest portion of the town of Phelps and flows south to the Merrill Dam. This river is classified as an outstanding resource water. In addition, the portion of the river near Lac Vieux Desert is considered a warm water sport fish community which is capable of supporting a community of warm water sport fish or serving as a spawning area for these fish. The greater redhorse and pirate perch, which are on Wisconsin's watch species list are found in the Wisconsin River northern sub-basin.

Deerskin River: The Deerskin River flows from Long Lake south to Scattering Rice Lake near Eagle River. This river is designated as an outstanding resource water, and is classified as a warm water sport, Class I and II brook and brown trout fishery. Beaver activity on the river is a problem, therefore beaver control activity has occurred. Wisconsin Valley Improvement Company (WVIC) operates and maintains a dam on the river on the south side of Long Lake in the Town. Dam operations historically permitted significant flow variation in a relatively short period of time which has had an adverse impact on the fishery and associated habitat improvement structures.

Little Deerskin River: This river is classified as an exceptional resource water and Class I trout stream. It is located in the southwest portion of the town and provides drainage from Deerskin Lake. The river supports a highly diverse fish population of 24 species, including trout, and is a valuable feeder stream that discharges to the Deerskin River. The middle and upper portions are degraded by beaver dams.

In addition to the above listed streams, Military Creek, Muskrat Creek and Blackjack Creek are all classified as exceptional resource waters.

The Vilas County Shoreland Zoning Ordinance separates rivers and streams into two classes for management and development purposes, based upon factors set forth in the Vilas County Lake and River Classification Study, February 1999. Class I rivers and streams were designated as those water bodies that had low or limited adjacent development or potential for development, were classified as outstanding or exceptional resource waters by the WDNR, and those which were cold water trout streams. Class I rivers and streams are considered highly sensitive waters, and include the majority of rivers and streams in the county. Development regulations applied to class I rivers and streams include a minimum lot area of 60,000 square feet, 300 foot frontage, and 270 foot lot width. Class II rivers and streams (or segments of them) were individually reviewed and are generally larger in size and have higher flushing volumes, therefore are less vulnerable to impacts from nutrient or sediment runoff. Many rivers and streams classified as class II already have high levels of existing development along their shorelines. Development regulations for class II rivers and streams include minimum 30,000 sq. ft. lot area, 150 foot frontage width, and 135 foot lot width. All rivers and streams within the town of Phelps are identified as Class I waters.

Lakes

As mentioned previously, the town of Phelps contains 41 named lakes. Within the area, the lakes are of glacial origin; some formed in broad, deep depressions in the drainage system while others are in depressions in the glacial drift.

As high levels of development exist on some water bodies and increased pressure for development of shorelands on many others, and given the varied sensitivity of lakes, Vilas County developed a Lakes Classification System as part of the Vilas County Shoreland Zoning Ordinance. Each lake in Vilas County greater than 50 acres in surface area was individually evaluated and classified (low, medium, high) based upon its sensitivity to development and the level of existing development along privately-owned shoreline. Minimum lot size and setback requirements for specified uses were then developed based on the lakes' sensitivity level. Lakes 50 acres and less in surface area were not individually evaluated, but were classified as warranting the highest level of protection (minimum 60,000 sq. ft. lot area, 300 foot frontage width, and 270 foot lot width).

The intent of the Lakes Classification Ordinance was to control further development as determined by the waterways ability to accommodate the development, and thus protect and

preserve surface water quality, fish and aquatic life, shoreland communities and natural beauty, and compatibility of proposed development with existing land and water usage. The ordinance will also maintain safe and healthful conditions, prevent and control water pollution and soil erosion, and control building sites and the placement of structures and other land uses.

Table 7-1 identifies the lakes classifications and associated development requirements for those lakes which are 50 acres or greater in surface area. Fourteen of the 41 named lakes in Phelps are 50 acres or greater. The remaining lakes within the town were not evaluated and were classified as warranting the highest level of protection with minimum lot size and setback requirements of 60,000 square foot lot area, 300 foot frontage width, and 270 foot lot width. Lakes less than 50 acres in surface area were deemed highly sensitive based on their small lake surface areas, proportionately larger shoreline lengths per surface area, less water volume to assimilate excess nutrients, and generally small-sized watersheds. In addition, these lakes have the potential for higher densities of development and higher numbers of recreational watercraft access points per acre of surface water

Table 7-1
Classification of Lakes
Town of Phelps, Vilas County

Lake Name	Surface Area (acres)	Max. Depth (ft)	Sensitivity Level	Level of Existing Development	Minimum Lot Area (sq ft)	Minimum Frontage Width (ft)	Minimum Lot Width (ft)
Big Sand Lake	1,408	35	Low	Medium	30,000	150	135
Deerskin Lake	309	18	Low	High	30,000	150	135
Imogene Lake	66	41	High	Low	60,000	300	270
Kentuck Lake	957	40	Low	Medium	30,000	150	135
Kildare Lake	54	21	Medium	Medium	40,000	200	180
Lac Vieux Desert	2,853	38	Low	Medium	30,000	150	135
Long Lake	872	95	Medium	Medium	40,000	200	180
Manuel Lake	76	9	Medium	Low	40,000	200	180
North Twin Lake	2,788	60	Low	High	30,000	150	135
Norwood Lake	125	89	Medium	Low	40,000	200	180
Smoky Lake	610	39	Medium	Low	40,000	200	180
South Twin Lake	642	43	Low	High	30,000	150	135
Spectacle Lake	171	35	High	Low	60,000	300	270
Sugar Maple Lake	137	46	Medium	Medium	40,000	200	180

Source: Vilas County Shoreland Zoning Ordinance, Article III, 3.4, A.

The lakes classification system identified that the lakes in Phelps which are 50 acres or greater generally have low/medium sensitivity levels and contain mixed levels of existing development along their shorelines. Two lakes were identified as warranting the highest protection of those lakes which were classified, Imogene Lake and Spectacle Lake, both of which were classified as highly sensitive with low levels of existing development. In this situation, the zoning standards

developed were based on higher prevention strategies rather than mitigation/restoration strategies.

The following provides general information about the water quality and fisheries of the larger lakes in the town of Phelps.

Lac Vieux Desert

Lac Vieux Desert is located in the northeast portion of the town of Phelps and crosses into Michigan. This lake is the point of origination for the Wisconsin River. Lac Vieux Desert is managed by both the Wisconsin and Michigan DNR's as a warm water fishery. In addition, the WDNR has classified the lake as an outstanding resource water because of its water quality, aesthetic characteristics, outstanding fisheries, significant waterfowl staging area, and high quality, multi-use recreation. WVIC owns the dam on the lake outlet and manages the lake as a storage reservoir to augment Wisconsin River flows.

Long Lake

The water levels of this lake are controlled by a WVIC-owned dam at the outlet. It is managed as a cold and warm water fishery, and identified as an exceptional resource water due to its water quality, largely natural watershed, cold water fisheries (cisco and trout), and high-quality, multi-use recreation.

Big Sand Lake

Water levels here are influenced by WVIC-owned dam on the outlet of long lake. Big Sand Lake is managed as a warm water fishery and identified as an exceptional resource water.

Smoky Lake

Smoky Lake is considered an exceptional resource water, located on the Wisconsin-Michigan border. It is managed as a warm and cold water fishery in cooperation with Michigan DNR

North and South Twin Lakes

These two lakes are connected and actually are the same water body. A WVIC-owned dam at the South Twin Lake outlet controls the water level of both lakes. Both are identified as warm water fisheries, and as outstanding resource waters due to water quality, aesthetic characteristics, cold water fishery (cisco), trophy fisheries (walleye and muskellunge) and high-quality, multi-use recreation.

Wetlands

Wetlands are areas where the soil is usually saturated or covered with surface water for two or more months during the year; the soil is nearly level and very poorly drained, allowing water levels to be the primary factor in controlling the environment and the associated plant and animal

life. Most wetlands are dominated by plants which can tolerate various degrees of flooding, with species composition and productivity dependent on the variations in the water patterns.

Wetlands act as a natural filtering system for nutrients such as phosphorus and nitrates, and serve as a natural buffer protecting shorelines and streambanks. Wetlands are also essential in providing wildlife habitat, flood control, and groundwater recharge. Consequently, local, state, and federal regulations place limitations on the development and use of wetlands and shorelands. Therefore, prior to altering a wetland resource, the appropriate agencies must be contacted to receive authorization.

There are numerous wetlands scattered throughout the town of Phelps, which comprise 8,779.21 acres, or 12.6% of the town's total acreage. Primarily, these areas are located adjacent rivers, streams and lakes, or in their general vicinity.

7.9 Environmentally Sensitive Areas

Environmentally sensitive or significant areas are those unique environmental areas which should be preserved from (urban) development. Such areas are typically identified as a requirement of sewer service area plans, however as the town's population is less than 10,500 persons, a sewer service area plan is not required. Therefore, there are no designated environmentally significant/sensitive areas within Phelps. Wisconsin Administrative Code NR 121.05(1)(g) describes the natural features and sensitive environmental areas that are to be excluded from designated sewer service areas, which include resources such as wetlands, floodways and floodplains, shorelands, areas of steep slope adjacent wetlands or shorelands, publicly owned scientific and natural areas (i.e., fish and wildlife habitats), and identified archaeological sites. Designation of environmentally significant areas is intended to 1) protect general public health, safety and welfare, 2) protect surface and groundwater quality, 3) reduce damage from flooding and stormwater runoff, and 4) maintain important wildlife habitats or outdoor recreation areas. Even though such areas are not "designated" by means of a sewer service area plan in Phelps, the town does contain numerous environmentally sensitive resources which should be preserved and protected from development.

The following environmentally significant resources exist within the town of Phelps:

- ♦ National Forest Lands
- ♦ Other Woodlands
- ♦ Lakes
- ♦ Shorelands
- ♦ Streams
- ♦ Wetlands

These environmentally sensitive resources consume a large portion of land within the town of Phelps (over three-quarters of the town's total acreage), and are important to its tourist-driven

economy. Therefore, the town of Phelps should take steps to ensure the protection of these resources.

7.10 Wildlife

The distribution and abundance of animals in the northern Wisconsin forest areas have changed dramatically since the 1800's (Wisconsin's Biodiversity as a Management Issue, 1995).

Unregulated commercial hunting and trapping, along with significant habitat changes, has resulted in the extirpation of several species in the area including elk, wolverine, woodland caribou, Canada lynx, fisher, pine marten, moose, eastern cougar, and eastern timber wolf. Some of these species however, have been reestablished in low numbers including the fisher, pine marten, eastern timber wolf, eastern cougar, and moose.

Another factor limiting the population and presence of some animal species in the northern forest areas is the lack of large, contiguous blocks of wild land with minimal human presence. Such species include the eastern timber wolf, black bear, bobcat, moose, eastern cougar and spruce grouse. These species require extensive forest ranges which can be immature and intensively managed, however the presence of humans must be low.

Other species numbers declined when logging and settlement occurred which drastically changed their habitat, however as the forest began to mature again their numbers increased. These species include the gray squirrel, porcupine, flying squirrel, and beaver. Species such as the raccoon, striped skunk, woodchuck, ground squirrel, and eastern cottontail became more abundant young forests, and small town and resort development occurred. Other common species in the area include the otter, fox and coyote.

The white-tailed deer is a common species in the area. During presettlement time, white-tailed deer populations were low ranging between 5-15 deer per square mile, and by the 1940's their population in the northern forests peaked with 40-50 deer per square mile. The high deer populations caused widespread damage to vegetation, therefore the WDNR has established a Deer Management Unit to manage Wisconsin's deer populations.

There is an abundance of bird species in the northern forest areas - over 100 - with common species including the ruffed grouse, woodcock, chestnut-sided warbler, mourning warbler, blue jay, rufous-sided towhee, brown thrasher, Nashville warbler, indigo bunting, goshawk, yellow-bellied sap sucker, chickadee, song sparrow, rose-breasted grosbeak, and the great-horned owl. A number of other species are now declining as the forests are maturing.

In addition to the abundance of common species, special attention should be directed to those species which are of special concern, threatened and endangered within the town of Phelps. The U.S. Fish and Wildlife Service and the WDNR identify and list threatened and endangered species at the federal and state levels, respectively. The state of Wisconsin's DNR also identifies species of special concern.

The U.S. Fish and Wildlife Service classifies a species (fish, wildlife and plant) for protection as "endangered" when it is in danger of extinction within the foreseeable future throughout all or a significant portion of its range. Species are classified as "threatened" if they are likely to become endangered within the foreseeable future. There are three federally-listed threatened and endangered species located within Vilas County. These species include the bald eagle, which is listed as a threatened species, and the gray wolf and Kirtlands warbler which are listed as endangered. The U.S. Fish & Wildlife Service indicated that though gray wolves are currently not present in the planning area, the planning area does contain suitable wolf habitat that may become occupied in the future, especially as the wolf population in Wisconsin is expanding. In addition, 12 bald eagle nests were recorded within the town of Phelps as of 1997. Activity occurring within 1/4 of a mile of these nests could disturb the eagles, possibly resulting in failure to reproduce in these areas. The town of Phelps should contact the U.S. Fish & Wildlife Service prior to working on specific projects to determine if the bald eagle, gray wolf, and/or Kirtland's warbler may be affected. A letter from the U.S. Fish & Wildlife Service is attached for review in Appendix 7-1.

The WDNR's Bureau of Endangered Resources lists species as "endangered" when the continued existence of that species as a viable component of the state's wild animals or wild plants is determined to be in jeopardy on the basis of scientific evidence. "Threatened" species are listed when it appears likely based on scientific evidence that the species may become endangered within the foreseeable future. The WDNR also lists species of "special concern" of which some problem of abundance or distribution is suspected but not yet proved; the intent of this classification is to focus attention on certain species before becoming endangered or threatened. The following species were identified in the town of Phelps:

Areas within town, *outside* of Nicolet National Forest:

♦ Osprey	Threatened
♦ Bald Eagle	Special Concern
♦ Arctic Shrew	Special Concern
♦ Lake Herring	Special Concern
♦ Canada Mountain-Ricegrass	Special Concern
♦ Prickly Hornwort	Special Concern
♦ Swamp Pink	Special Concern

Areas in town, *within* Nicolet National Forest:

♦ Osprey	Threatened
♦ Bald Eagle	Special Concern
♦ Broad Beech Fern	Special Concern
♦ Swamp Pink	Special Concern
♦ Yellow Screwstem	Special Concern

A letter from the WDNR which details the above information is attached for review in Appendix 7-2.

7.11 State Natural Areas

State Natural Areas are formally designated sites which are devoted to scientific research, the teaching of conservation biology, and especially to the preservation of their natural values and genetic diversity for future generations. These areas are not intended for recreational uses such as picnicking or camping.

As of September, 1997, 324 sites including over 100,000 acres have been designated as State Natural Areas. There are no state natural areas within the town of Phelps, however the WDNR Bureau of Endangered Resources has identified Plymouth Lake within the town as an area which is known to contain high quality natural communities (see Appendix 7-2). There are nine state natural areas within other areas of Vilas County including the following:

- ♦ High Lake Spruce-Balsam Forest - town of Presque Isle
- ♦ Plum Lake Hemlock Forest - town of Plum Lake
- ♦ Bittersweet Lakes - town of Arbor Vitae
- ♦ Black Tern Bog - town of Arbor Vitae
- ♦ Johnson Lake Barrens - town of Land O'Lakes
- ♦ Aurora Lake - town of Plum Lake
- ♦ Goodyear Springs, East - town of Land O' Lakes
- ♦ Day Lake - town of Boulder Junction
- ♦ Pine-Oak Grove (location not identified)

For additional information regarding the state natural areas program contact the WDNR, Bureau of Endangered Resources.

7.12 Agricultural Land

The presence of agricultural land within the town of Phelps is primarily limited to hobby farms with grazing areas for livestock, tree farms, and cranberry operations, which are found scattered throughout the town.

7.13 Historic/Cultural Features

The identification of existing historical structures and cultural areas are an important consideration in all town planning efforts, as these features help to define a community's physical look and character.

The State Historical Society has recorded two "registered" historic properties within the town of Phelps. Both properties are listed on the National Register and State Register of Historic Places, and include:

- ♦ Fort Eagle (currently Homer K. Galpin House), located at 943 Fort Eagle Lane, constructed in 1919, with additions in 1921 and 1927, and
- ♦ Wallila Farm Site (archeological site), located in the southwest portion of the town

In addition to these areas which are listed on the National and State Register's, numerous other archeological and structural historic properties exist within the town, however these are non-listed. These properties include:

- ♦ Lac Vieux Desert Dam, located along West Shore Drive and the Wisconsin River, constructed in 1937.
- ♦ Long-on-Deerskin Dam, located along Dam Road and Deerskin Creek, constructed in 1937.
- ♦ Military Hill Lookout Tower, located 1/8 mile north of STH 17, T41N R11E, Section 2, constructed in 1935.
- ♦ Lodge Building (historically Hazen's Long Lake Lodge), located on Hazen Lane, constructed in 1901.
- ♦ Hazen Inn (historically Hazen's Long Lake Lodge), located on Hazen Lane, log barn.
- ♦ Cabin #1 (log), located on Hazen Lane, constructed in 1900.
- ♦ Cabin #2 (log), located on Hazen Lane, constructed in 1900.
- ♦ Cabin #3 (log), located on Hazen Lane, constructed in 1900.
- ♦ Statewide Public Access Vilas County, rustic style log house, located in T41N R11E, Section 3, constructed in 1945.
- ♦ Holiday Lodge (historically Sandy Beach Resort), located in T41N R11E, Section 2, constructed in 1919.

If the town is interested in identifying the location(s) and/or significance of these sites, the State Historical Society of Wisconsin can be contacted for further details.

8 Land Use Analysis

Land use is a means of broadly classifying different types of activities relating to how land is used. Each type of use has its own characteristic that can determine compatibility, location and preference to other land uses in the town. The land use plan brings together consideration for both the physical development as well as the social characteristics of the town.

To arrive at an optimum plan that will be both effective and implemented, the plan must account for past development activity as well as current market factors and conditions that shape land use. Because land use is a people-orientated process, personal opinions and desires, attitudes, legal and political considerations all have land use impacts. To adequately consider the preparation of a land use plan, these factors need to be considered. Some of these aspects have been discussed in earlier sections and will be used as reference. Other aspects will be discussed as the land use plan is developed.

Section 8.1 discusses the uses of land in the town of Phelps. The existing land use types are defined, current land uses are analyzed, and existing and potential land use conflicts are identified.

8.1 Existing Land Use Inventory and Analysis

The first step in the land use analysis process was to conduct an inventory of existing uses. The primary purpose of this inventory is to accurately determine Phelps's present land use situation. The land use inventory classified land uses into 13 categories, which are described in detail in Appendix 8-1, Existing Land Use Classification System. Aerial photographs were interpreted to determine the type of use on a town-wide basis. A follow-up "windshield survey" was conducted for areas accessible by road. Vilas County had not completed the parcel base mapping for the Town at the time of Plan development, so general areas were configured from the aerial photos.

Existing land uses were digitized from the photos and formulated into Map 8-1, Town of Phelps Existing Land Use Map. Acreage totals for each land use type were then calculated and are presented as part of Table 8-1. Phelps's existing development is located in areas not occupied by the Nicolet National Forest. As discussed in Section 8.2, and as displayed on Map 8-2, the publicly owned lands in the town occupy over 55% of the total land area. Residential development occurs sporadically in the inland areas at particularly low density. The shoreline areas on the town's larger lakes are nearly completely developed with both seasonal and permanent single-family residential and interdispersed resort and condo-type uses. The STH 17 corridor is developed with a mix of residential and commercial uses.

In the case of the town of Phelps, the situation is somewhat simplified by the general dominance of forest as a land use. As can be observed from Table 8-1, forest is the largest land use category with 71.4% or 49,814.9 acres within the town. A distance second are the water features occupying 15.8% or 10,997.1 acres. Forested lands and surface water account for a combined 60,812 acres or 87.2% of the town's acreage. This data enforces the fact that the character and development of Phelps is closely tied to its natural resource base.

Table 8-1
Town of Phelps
Existing Land Use and Acreage
1998

Land Use Category	Total Acreage	Percent of Total
Residential		
Single-Family	2,136.9	3.1
Two-Family	0.3	0
Multi-Family	9.6	0
Commercial/Business		
Resort	58.6	0
Highway	15.4	0
Community	7.1	0
Industrial	53.1	0
Community Uses		
Public/Institutional	32.7	0
Parks and Recreation	176.2	0.3
Cemetery	5.2	0
Agriculture		
Active Farmland	698.0	1.0
Forest	49,814.9	71.4
Utilities/Communications	0.8	0
Open Space and Roads	5,729.9	8.2
Surface Water	10,997.1	15.8
Total	69,735.8	100.0

The following analyzes the major existing land uses in the town and planning area in detail, as illustrated on Map 8-1.

Residential

Residential development in the town consists primarily of single family residences. There are some multi-family developments in the town, including the Northwoods senior housing complex (Northwoods Housing Association, Inc.) directly adjacent to the Phelps Northwoods Medical Center and the ten unit assisted living facility located on Strong Road. There are 96 acres of multi-family use in the town of Phelps.

Inland residential uses are spread throughout the town, and are typically located on relatively large (typically over 3 acres), tree covered lots. Over 65% of the residential housing developments in the town are for seasonal or recreational use, with 34% (34.8 %) being occupied for year-round residency.

As shown by Map 8-1, single family residential development has taken place primarily adjacent to the shoreline which extends along many of the town's lakes (those over fifty acres in size) such as Lac Vieux Desert, Big Sand, and North Twin Lake. The shoreline developments are typically on wooded, smaller lake lots, each with individual access on the waterfront.

The Lac Vieux Desert west shore area holds the town's highest inland concentration of residential uses. The Phelps downtown area also holds higher concentrations of inland residential use, with the majority of these structures being single-family residences interdispersed with the downtown's commercial and business uses. Overall, there are 2,136.9 acres of single-family residential use in the town.

Commercial/Business

Three types of commercial business development are found within the town of Phelps. They include resort, highway and community commercial. In all, commercial uses occupy 81.1 acres in the town.

Resort commercial developments in Phelps are scattered throughout the town, comprising 58.6 acres of land. There are ten resorts on six different lake shorelines, with three resorts (in the Town) on Lac Vieux Desert. The resorts offer both active and passive use. Map 8-1 only displays the active land uses, or areas that are developed with residential and commercial facilities on the property. The resorts may have additional acreage used by the facility (trails or hiking as an example) but it is classified according to the specific use e.g. forest or open space.

Highway commercial activities occupy 15.4 acres in the town, with most of the uses occurring along STH 17. Some of the commercial developments are renovated single family structures. Uses consist of one motel, one two-unit vacation apartment house, a service station, three taverns (pub and grill), four restaurants, and one craft and specialty shop. The business district is

oriented more toward seasonal residents than for the year-round residents. The shops and restaurants in this area are somewhat concentrated and consist mainly within the downtown business district as discussed in Section 12.

There are a few community commercial uses in the town, most of which are interspersed along STH 17. Included in this area are a grocery store, real estate office, hardware store, direct marketing business, a bank, and a sporting goods/marina operation. As mentioned previously, the business district is oriented more toward seasonal tourists than for the year-round residents. However, the local, permanent population utilizes the goods and services provided in this segment of the Phelps economy, as the city of Eagle river is 17 miles from downtown Phelps. The town has 7.1 acres in community commercial use.

There are a few mixed use developments existing in the town, including single family/highway and single family/resort. A mixed use is defined as two primary uses coinciding at the same location or structure. For example, a single family residence with a construction operation operating out of a garage or building. There are seven single family/highway commercial uses in the town. For purposes of this study, these uses were not differentiated from the other categories so no acreage calculation was completed. These uses were counted in the single-family use category.

Industrial

There are a few active light industrial use areas in the town, occupying 53.1 acres of land. The light industry is not concentrated to any area, and consists of a casting plant and a lumber truss operation. There are two vacated industrial sites in the town that are also included in the classification.

Community Uses

Community uses occupy a total of 214.1 acres of land in the town. Included in this acreage are public/institutional uses, parks and recreational uses, and cemeteries.

The town has about 32.7 acres of land in public/institutional uses. This includes the town hall, library, garage and fire station, four churches, medical facilities, post office, the wastewater treatment facility, and public access sites to the water.

Approximately 176.2 acres of town land is used for parks and recreation. The majority of this acreage (42 acres), is comprised of Wavering Park, which offers both active and passive recreational use. There are four public parks, two of which are currently undeveloped and in their natural state, and one public beach and picnic area. There are twelve public access areas to lakes in the town of Phelps.

There is one cemetery in the town which occupies 5.2 acres of land. It is located along STH 17, directly across from Wavering Park, just east of the unincorporated community of Phelps.

Agriculture

Agricultural land, which in the town of Phelps includes active farmlands, farmsteads and lands in agricultural production, comprises 698.0 acres of land. The land in these uses is located throughout the town.

Forests

As stated earlier, woodlands is the predominant use in the town of Phelps. Fifty-two percent (52%), or 36,477.5 acres of the town is located within the federal boundary of the Nicolet National Forest. In total, over 73% (71.4 %) of the lands in the town are wooded, accounting for 49,814.9 acres.

Open Space and Roads

Open space land includes unforested wetlands and other undeveloped or unforested tracts of land that are not associated with other land uses. These areas are located throughout the town. The acreage of the open space land combined with the acreage consumed by streets and highways, totals 5,729.9 acres of town land.

8.2 Land and Resource Protection Programs

Natural resource preservation, especially that of forests/woodlands, is a highly important issue in the town of Phelps. Residents and property owners have indicated by means of both the community planning survey and public meetings the strong value they place on the preservation of forests and woodlands within the town. Survey respondents indicated that what they like most about Phelps are its lakes, woods, scenery, rolling hills, recreational opportunities, beauty and peace and quiet. In addition, they identified the preservation of natural resources as the most important issue facing the town in the next two decades. Residents and landowners who participated in the Issue Identification Workshop on November 11, 1997 identified the preservation of the quality of all natural resources, which includes forests, as one of the top five priority issues facing the town in the next two decades.

This section identifies the impact of various forestry management programs on the town of Phelps. In addition, the various programs available for Wisconsin landowners to preserve and protect forested areas and other natural resources are explored. Some of these programs have been and are currently being used by landowners in the town, while some are not. Utilization of these programs by private landowners is highly recommended as a key element to preserve the town's northwoods character and resource base.

Impact of Forestry Management Programs

Table 8-2 summarizes the current level of forest land protection achieved within the town of Phelps through federal, state, private conservation club, and private landowner participation in various land and resource management and protection programs. Map 8-2 illustrates the location of lands enrolled in the various management and protection programs.

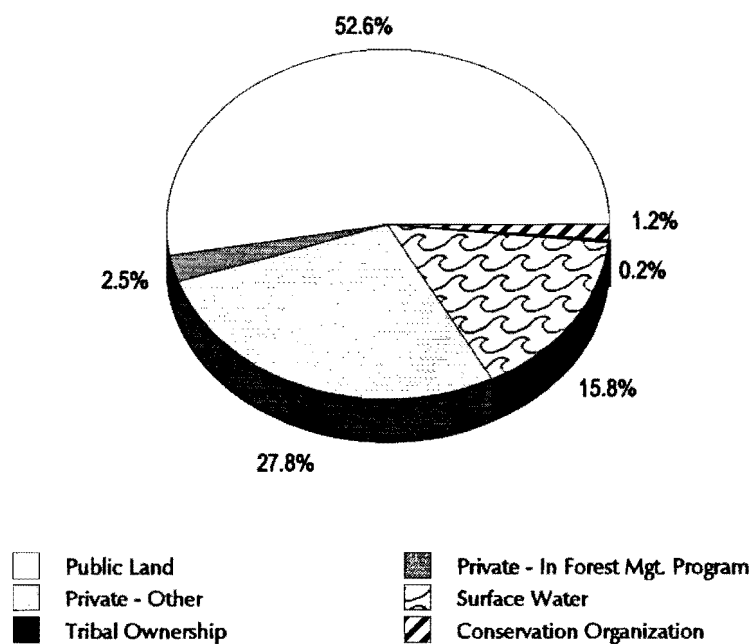
Table 8-2
Land Impacted by Natural Resource Protection Programs
Town of Phelps

Program	Acres Impacted	% of Total
Public Ownership	36,673.4	52.6%
Federal Ownership (U.S.D.A. Forest Service - Nicolet National Forest)	36,477.4	52.3%
WDNR Ownership (Fee Title Purchase)	71.0	0.1%
Town of Phelps	125.0	0.2%
Tribal Ownership	114.3	0.2%
Lac Vieux Desert Band of Chippewa Indians	114.3	0.2%
Private - Forest Management Program	1,740.6	2.5%
Managed Forest Law - Open	353.5	0.5%
Managed Forest Law - Closed	1,206.3	1.7%
Forest Crop Law	180.8	0.3%
Private - Other	19,353.8	27.8%
Nonprofit Conservation Organization Ownership	856.7	1.2%
Surface Water	10,997.1	15.8%
Total	69,735.8	100.0%

Source: Foth & Van Dyke, 1999; WDNR Bureau of Forestry, 1998.

Approximately 72.3% of the town of Phelps is protected, either through federal or state ownership, private landowner participation in the various land and resource protection programs that are offered, or nonprofit conservation club ownership (56.5%), or are surface water resources (15.8%). As expected, Phelps is highly impacted by federal ownership of land, whereby the Nicolet National Forest occupies over 52% of the town's total acreage. The Nicolet National Forest lands are discussed in further detail in this section under "Lands Under Other Resource Management and Protection Programs, Federally-Owned Lands".

Figure 8-2
Land Impacted by Natural Resource Protection Programs
Town of Phelps



Source: Foth & Van Dyke, 1999; WDNR Bureau of Forestry, 1998.

Forestry Management Programs

Managed Forest Law (MFL)

The purpose of the Managed Forest Law is to promote sound forestry management practices by providing property tax reduction incentives to landowners. Wooded parcels at least ten acres in size are eligible to be enrolled in the program, however at least 80 percent of the land must be productive forest land (timber-producing). Lands may be enrolled for either 25 or 50 year periods, requiring a long-term commitment, however also providing long term protection from property tax escalations. Land occupied by residences and commercial buildings are not eligible, however cabins, hunting shacks and utility buildings are allowed though will be taxed as personal improvements.

Preparation of an approved forestry management plan is required which can be prepared by a WDNR forester at no charge. Practices identified in the plan must be carried out for the duration of the contract period. Mandatory management activities required by the law include cutting mature timber, thinning plantations and natural stands, pine release, planting, post harvest treatments, and soil conservation practices. Another obligation to the program is that a 5% yield tax is applied to any harvested, merchantable wood products, based on the rates in effect. Landowners may elect to close up to 80 acres to the public, otherwise open lands must allow public access for hunting, fishing, cross-country skiing, hiking and sight-seeing. The current tax rate is \$0.85/acre/year on open lands, and \$2.00/acre/year on closed lands. These rates were adjusted in 1998, and will be revised every five years. The MFL program is administered by the WDNR.

There are 49 parcels of land in the town of Phelps enrolled in the Managed Forest Law program totaling 1,559.83 acres. Approximately 77%, or 1,206.32 acres, are closed to public access, while the remaining 353.51 acres are open to the public. The MFL lands are scattered throughout the town of Phelps. Approximately 90% of the lands enrolled are under 25 year contracts, and 10% are under 50 year contracts. These lands will remain under MFL for some time, with the earliest contracts expiring in 2012 and the last contracts expiring in the year 2048.

Forest Crop Law (FCL)

The Forest Crop Law, also administered by the WDNR, was established to promote and encourage long-term investments as well as the proper management of woodlands. This program is no longer open to new participants except through the purchase of land currently under the law. At least 40 acres of adjoining forest land is required to be eligible for the program. Contract length may be either 25 years or 50 years, however conversion into the Managed Forest Law program is available either upon the contract's expiration, or early conversion may be completed. Structures for dwelling are not permitted.

Participants must follow a written management schedule, including mandatory activities of cutting mature timber and thinning plantations and natural stands. A 10% yield tax is applied to harvested, merchantable wood products based on the rates in effect. Public access for

fishing and hunting activities must be permitted on the land. Acreage tax payments are \$0.10 /acre/year (acres enrolled prior to 1972), and \$0.83/acre/year (acres enrolled after 1972). These rates will be adjusted in 2003 and every 10 years thereafter.

There are 180.75 acres of land in the town of Phelps enrolled in this program, comprised of 5 parcels of land. The contracts for these lands will expire between 2009 and 2034.

Benefits of Forestry Management Programs

There are numerous benefits which result from participation in the aforementioned programs, including:

- ♦ Protection against overcutting.
- ♦ Low regular property tax.
- ♦ Protection against annual property tax hikes.
- ♦ Technical assistance for private forest lands.
- ♦ Predictable property tax.
- ♦ Long-term forestry investment.
- ♦ Encourages woodland expansion.
- ♦ Preserves and manages wildlife habitat.
- ♦ Preserves "Northwoods" character.

Lands Under Other Resource Management and Protection Programs

Federally-Owned Lands

Approximately 52% of the total area of the town of Phelps is included in the Nicolet National Forest, comprising 36,477.4 acres. The Nicolet National Forest covers approximately 661,377 acres in Vilas, Florence, Forest, Langlade, Oconto, and Oneida Counties in Wisconsin. Historically, the area which is now forest land was subject to destructive logging practices and was then sold to immigrants for farms and homesteads. Farming was not viable in the area's soils which were better suited to trees, and most farms were abandoned. Therefore, the forest was established in 1933 by presidential proclamation to reestablish the area's original tree-covered vegetation. Today, public access is allowed within the forest for enjoyment of its abundant natural resources, and beauty.

The U.S.D.A. Forest Service requires that Land & Resource Management Plans be prepared for all National Forest. These "forest plans" represent an integrated, ecological approach to managing the forests' natural resources and guide all natural resource management decisions. The plans provide direction for multiple-use management and the sustained yield of goods and services in an environmentally sensitive manner, termed "Ecosystem Management". These documents are dynamic, therefore they can and often are amended.

Currently, the Forest Service is revising the Forest Plans of the Chequamegon - Nicolet National Forests. The two forests were merged in 1993 to be managed as one administrative

unit, though each have retained their individual identity. The most current forest plans were completed in 1986, and were designed to last 10 to 15 years. Revision of the plans, including the consolidation into one forest plan, began officially in 1996 as the Forest Service determined through monitoring, evaluation and public comment that there was a need to make some changes to the 1986 Forest Plan. Major revision topics that will be addressed in the revised plan include 1) access and recreational opportunities, 2) biological diversity, 3) special land allocation, and 4) timber production.

One item of particular interest to be addressed in the revised forest plan is access and recreational opportunities, specifically the use of all-terrain vehicles (ATV's). The number of visitors to both forests is increasing, as expected. However, along with the increase in visitors came an increase in the use of ATV's in and through the forests which was not anticipated. These trends have resulted in heightened conflicts between motorized and non-motorized forest users. Presently, all areas of the Nicolet are closed to ATV's, while all areas of the Chequamegon are open unless posted otherwise. The forest plan revision will try to provide a single approach to ATV use within the two forests, and determine the areas within both forests which could be available for ATV use. It is likely that land will become available for ATV use in the Nicolet Forest, while less land may become available for ATV use in the Chequamegon Forest. Areas designated for ATV use will likely be those areas which are less populated.

The Forest Service anticipates completing the forest plan revision by the end of April, 2000. Public participation in the planning process is encouraged and interested persons may contact the Nicolet National Forest in Rhinelander, or the Eagle River Ranger District. It would be advantageous for Town residents to participate in the Forest Plan Revision process to ensure the Town's needs and ideas are being considered with regard to the Nicolet National Forest, especially since it covers approximately 52 percent of the Town.

DNR-Owned Lands

The Wisconsin Department of Natural Resources (WDNR) owns 70.98 acres of land in the Town of Phelps. This acreage includes property for the purpose of public access for fisheries along Lac Vieux Desert and Big Sand Lake.

Town-Owned Lands

Town-owned land comprises approximately 125 acres within the town.

Lac Vieux Desert Band of Chippewa Indians

The Lac Vieux Desert Band of Chippewa Indians owns approximately 114.25 acres along the eastern border of Lac Vieux Desert.

Private Conservation Clubs

The Big Sand Lake Conservation Club owns approximately 594.66 acres of land along the eastern shore of Big Sand Lake.

The Woods Lake Club owns approximately 262 acres of land within Phelps along the northeastern town border north of Big Sand Lake. The majority of this club's land is located in the state of Michigan to support natural resources there.

Other Land and Resource Protection Tools

In addition to the forestry management programs which some town residents currently participate in, and to the federal-, state- and conservation club-owned lands, there are other tools which can also be used to protect and manage natural resources within the town. The following briefly explains these tools, and where more information can be received.

Stewardship Incentive Program (SIP)

The purpose of the Stewardship Incentive Program is to assist landowners in more actively managing, protecting, and enhancing their forest lands and related resources through cost-sharing. The program aims to keep forest lands productive and healthy for both present and future owners, and to increase the economic and environmental benefits of these lands. Private landowners may enroll 10 to 1,000 acres of woodland in the program, and must maintain a 10 year contractual commitment.

Nine general categories of management practices are eligible for cost-sharing under SIP, including 1) forestry management plan development, 2) tree planting, 3) forest improvement, 4) windbreaks and hedgerows, 5) soil and water protection, 6) riparian and wetland protection, 7) fisheries habitat enhancement, 8) wildlife habitat enhancement, and 9) forest recreation enhancement. Sixty-five percent of the actual cost of each practice is covered, with maximum limits as established by the WDNR. The practices available in individual counties may vary. Public access is not required. This program is administered by the WDNR, USDA Farm Service Agency (FSA), and County Land Conservation Departments.

Forestry Incentive Program (FIP)

The Natural Resources Conservation Service (NRCS) administers the Forestry Incentive Program, in association with the WDNR, which was initiated to provide cost-sharing to private landowners for implementing forestry management practices. Landowners with 10 or more acres are eligible to enroll in the program, and agree to maintain the practices for an estimated life span. The development of a management plan is required which establishes the practices to be performed including tree planting, site preparation for natural regeneration, timber stand improvement, etc. Public access on the property is not required.

Wetlands Reserve Program

The Wetlands Reserve Program (WRP) is a voluntary program which was established to restore wetlands on lands which were previously altered for agricultural use. The program is administered by the USDA Natural Resources Conservation Service in consultation with the Farm Service Agency and other federal agencies.

Land is eligible for enrollment in the WRP if the landowner has owned that land for at least one year, and the land is restorable and suitable for wildlife benefits. Landowners may choose to restore wetlands with a permanent or 30-year easement, or enter into a cost-share restoration agreement with the USDA. If a permanent easement is established, the landowner will receive payment up to the agricultural value of the land and 100% of the wetland restoration costs. The 30-year easement payment is 75% of what would be provided for a permanent easement on the same site, and 75% of the restoration costs. Voluntary cost-share restoration agreements are generally for a minimum of 10 years, and 75% of the cost of restoring the land to wetlands is provided. In all instances, landowners continue to control access to their land.

Wildlife Habitat Incentives Program (WHIP)

The Wildlife Habitat Incentives Program (WHIP) is a voluntary program for private landowners who wish to establish or improve wildlife habitat on their land, with a primary emphasis on re-establishing declining species and habitats. Both technical assistance and cost sharing are provided to help develop, maintain, and/or improve fish and wildlife habitat through management practices. Lands which are eligible for program participation include woodlots, agricultural and non-agricultural land, pastures, and streambanks which are generally at least 5 acres. Landowners are required to prepare and implement a wildlife habitat development plan which includes cost-share eligible practices to be conducted including fencing, seeding, limited tree planting, instream structures, burning, etc. Up to 75% of costs are reimbursed, generally not to exceed \$10,000; other organizations may provide the remaining 25% of the cost-share or provide expertise to help complete a project. The normal contract duration is 10 years at a minimum to maintain wildlife habitat. Public access is not required under this program. The program is administered by the Natural Resources Conservation Service.

Lake Associations

Several lake associations exist for various lakes within the town of Phelps. These associations aim to improve, protect and preserve their representative precious water resources by promoting proper lakefront management practices, conducting weed harvesting, and obtaining funds to complete lake studies/lake management plans, among partaking in other related activities.

- ♦ Big Sand Lake Property Owners Association
- ♦ Deerskin Lake Association
- ♦ Kentuck Lake Preservation District
- ♦ Kildare Lake Association
- ♦ Lac Vieux Desert Association
- ♦ Smoky Lake Property Owners Association
- ♦ Spectacle Lake District
- ♦ Twin N & S Riparian Owners Association
- ♦ Vilas County Lakes Association

Potential Lands for Protection

In addition to the lands already enrolled in the various forest management and resource protection programs, there are many environmentally significant resource areas in the town which are not currently enrolled in any of these management programs. These areas include all forested/woodland areas, shorelands, and wetlands. However, as participation in these programs is voluntary by private landowners, it is up to the town of Phelps to encourage and promote the use of these programs and to direct its residents to the appropriate agencies. In addition, these areas were considered in the development of the Year 2020 Preferred Land Use Plan Map (Map 11-1).

Summary

Over 39,385 acres (56.5%) of land in the town of Phelps are currently managed at the federal or state level, or by a nonprofit conservation club, or are enrolled in some form of forestry management or resource protection program, while another 10,997.1 acres (15.8%) is surface water. As the majority of this acreage within Phelps is federally-managed and included in the Nicolet National Forest, the town and its residents and stakeholders should actively participate in the current and future updating of the forest management plan. For more information about the forest plan revision process for the Chequamegon-Nicolet National Forest, contact:

Nicolet National Forest
Eagle River Ranger District
P.O. Box 1809
Eagle River, WI 54521
(715) 479-6407

or visit the forest's web site home page at <http://www.fs.fed.us/r9/cnnf/> "Forest Plan Revision"

In addition, the inventory indicates that landowners within the town are aware of the variety of programs available to preserve and protect forests and other natural resources, and are becoming actively involved in these programs. However, further program involvement by private landowners is a key ingredient to attaining the town's vision and maintaining its northwoods character. It should be the town of Phelps' position to continue informing private landowners of the forest management and resource protection programs available, and to encourage their enrollment and participation in such programs.

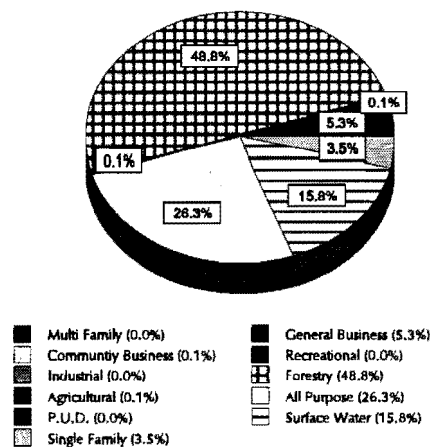
8.3 Development Regulations

Under Wisconsin Statutes, counties and local units of government are authorized to adopt "zoning" ordinances. Zoning is a method for implementing or carrying out the "land use plan" by predetermining a logical pattern of land use development.

A zoning ordinance consists of a map and a written text. The zoning map arranges the community into districts or zones...conservancy, agriculture, residential, commercial, industrial, etc. Within each of these districts, the text of the zoning ordinances specifies the permitted land uses, the size of buildings, yard/lot dimensions, and other prerequisites in obtaining permission to develop. The goal of the zoning ordinance is to secure a reasonable development pattern by keeping similar and related uses together and separating dissimilar, unrelated and incompatible uses; particularly in relationship to transportation facilities, utilities and public services and facilities.

A county may promulgate a zoning ordinance as described above for the unincorporated areas of the county, that is, outside the corporate boundaries of cities and villages, but it is only effective if a town adopts it for application to its jurisdiction. In the absence of a county zoning ordinance, towns can adopt their own zoning ordinances, but if there is a county ordinance in place and a town wants to adopt zoning, it must adopt the county ordinance, or have the county approve a separate ordinance for that town. Any ordinance, ordinance revision, or amendment to a "town" zoning ordinance under these conditions must first be approved by the county before it may become effective. The Vilas County General Zoning Ordinance and Shoreland Zoning Ordinance No. 85 was originally adopted January 15, 1985, and amended (#85-94) October 10, 1996, and May 1, 1999 (#135). The County Zoning Ordinance regulates land use within the town of Phelps. The zoning districts are shown on Map 8-3, while information about the zoning districts within the town are presented in Figure 8-3 and Table 8-3. Specific zoning language as it pertains to permitted uses, conditional uses, setback requirements and more can be found in Appendix 8-2 (Article IV only).

**Figure 8-3
Existing Zoning
Town of Phelps
1998**



Source: Vilas County Zoning Department, 1998; Foth & Van Dyke, 1998.

**Table 8-3
Existing Zoning
Town of Phelps
1998**

Zoning District	Land in Acres	Percent of Total
Single-Family	2,430.2	3.5
Multi-Family	0.0	0.0
General Business	3,678.7	5.3
Community Business	61.0	0.1
Recreational	0.0	0.0
Industrial	0.0	0.0
Forestry	34,018.5	48.8
Agricultural	40.3	.1
All Purpose	18,349.1	26.3
P.U.D.	0.0	0.0
Surface Water	10,997.1	15.8%
	69,735.8	100%

Source: Vilas County Zoning Department, 1998; Foth & Van Dyke, 1998.

Counties are mandated to promulgate and adopt 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, which Vilas County has also done. This ordinance supersedes any town ordinance unless a separate town ordinance is more restrictive. The shoreland/wetland and floodplain area is that area that lies within 1,000 feet of a lake, within 300 feet of a navigable stream, or to the landward side of a floodplain whichever distance is greater. The town of Phelps does not have a land division ordinance at this time and relies exclusively on the Vilas County Zoning and Shoreland Protection Ordinance for land use control. This arrangement has some obvious benefits like full-time, professional administration and enforcement. However, drawbacks include zoning districts and permitted uses that may not match the town's goals such as the uses allowed under the "Recreational", "All Purpose" or "Forestry" zones. Additionally, the town is somewhat restricted in its ability to mold these regulations to implement its land use plan, and must instead petition the county to make such changes for them. In the event of any amendment to the County Zoning Ordinance (affecting the town), the town does not have an opportunity to "veto" the proposed change(s) in the code or map. This becomes difficult from the perspective that the general regulations apply to fourteen other towns who also may have opinions on how things should be changed, if at all. The town may adopt their own town-specific ordinances, but said ordinances would require local administration.

The county should view this town land use plan as a formal statement of the town policies regarding land use and development and utilize it as a guide for reviewing subdivision plats, certified survey maps, rezoning requests, updating the town zoning map, and other land use proposals.

8.4 Existing and Potential Land Use Conflicts

The goal of developing a land use plan is to formulate a functional strategy for the orderly transition of land within "proper" aesthetics of the community vision. In order to attain the goals, it is important to identify the existing or potential conflicts between land uses in the town. This involves an analysis of uses, where the characteristics of a particular land use are incompatible with an adjoining use.

This discussion is somewhat relative because there may be some degree of undesirability between many land use combinations. There are, however, some typical associations which may create problems. A typical example might be a residential development in close proximity to a particular industrial or commercial development that might conflict with sight, sound, odor or other undesirable characteristics. Another example could be an auto salvage yard in proximity to a recreational or natural area, or a home occupational, commercial-type use in a single family area that has outgrown its roots.

In the other direction, an example of compatible land use could be residential development in association with wooded recreational lands or vacant open space areas. Obviously, with the constraints of existing development and limiting factors on future growth, the most desirable situations are not always possible. What should be strived for is an awareness of incompatible land uses and an effort to alleviate or avoid them where possible.

In terms of the town of Phelps, land use in the town is generally desirable. However, some aspects need to be considered. The downtown business district has several properties that are not in character with the intent of the district aesthetics and design. Working with the business owners to modify the structures when and if remodeling or building takes place will be a benefit to the business as well as the entire community.

Home occupations are becoming more popular as the workforce is disseminated from the office environment, and more people with entrepreneurial spirit are testing the waters of self-employment from their homes. Professional disciplines can be networked to the home office with Internet services and overnight mail. The transformation of the world wide web and fiber optic technology will literally change the way people work and do business, now and in the future.

The northwoods, the town of Phelps being a prime example, is a prime candidate for impacts associated with this shift in workforce location. Most people would agree that America was built on the ingenuity of people working for themselves, working out of the home is their choice. However, when conditions change relative to the use of a primarily residential land use to more of a commercial or similar type use, the impacts to the surrounding properties are real and can

have negative impact. Defining what a home occupation is exactly, and when a home occupation in a single-family home becomes something else that does not fit the definition of a single family use, needs to be defined by the town of Phelps in the very near future.

Due to the large volume of land occupied by the Nicolet National Forest, a conflict immediately arises within the uses desired for the remaining privately held lands in the town. Including lands owned by the state of Wisconsin, federal government, Lac Vieux Desert band of Chippewa Indians, and lands occupied by surface water not including wetlands, approximately 32 % of the lands in the town of Phelps are available for development. In addition, a majority of the private land in Phelps is zoned either All-Purpose or General Business. The uses permitted in the All-Purpose and General Business zoning districts could lead to conflict as residents may face mixed uses of commercial, industrial, and residential within the same area. Mixed uses, although common throughout Vilas County, generally lead to conflict if not specifically designed for "neighborhood" integration, such as the case in the Phelps downtown area. Phelps's zoning may prove to be a difficult challenge for town leaders and residents to address as preferred land uses may be more specific than the All-Purpose or General Business zoning allows.

Within the remaining percentage of land held privately, an undetermined percentage of landowners may have no intention of developing their property. Also included within the formula for land development pressures are the demands for northwoods property for both residential development and recreational use. Land use in the town of Phelps will inherently have conflict relative to the land development process and how that corresponds to the vision the community has drafted for the town in the long term perspective. Plan administration will play a large part in that drama.

At the time of this report preparation, the State of Wisconsin Department of Commerce adopted revisions February 04, 2000 to the existing on-site sanitary system disposal code (called COMM 83). The revisions change the private, on-site treatment system options allowed in the state septic system code by adding an assortment of sewage treatment options for residential applications that have not been previously allowed. For example, existing state code allows sanitary systems to be approved for conventional septic systems and certain types of above ground mound systems. Holding tanks are also allowed under state code, but counties and local municipalities have the authority to ban holding tanks within their jurisdiction (Vilas County allows holding tanks as a system of choice). The COMM 83 revisions expand treatment options to include five additional designs which would allow greater flexibility in siting and treating private septic system waste. For example, the construction of new septic systems would be allowed on land with 6-24 inches of native soil - areas where now only holding tanks are allowed. If approved, municipalities/local governments would have 36 months to implement the new rule.

The implications of the proposed state code revisions may have dramatic land use impact. According to the Department of Commerce, the previous state code regulations allowed 47% of lands in the state to be permitted with conventional, in-ground septic systems due to the existing soil characteristics and depth to groundwater. The new code allows nearly 81% of lands in the

state to be developable due to allowing the installation of treatment systems such as sand filters and aerobic treatment that require less restrictive depths to groundwater, while effectively treating wastewater at levels the same or better than current technology. Overall, the proposed COMM 83 revisions open approximately nine million acres for development throughout the state.

The proposed revisions have significant land use impacts in terms of emphasizing the importance of land use planning in managing how much land can be developed, where development could occur, and how dense the housing could. Hence, code revisions and their potential land use implications should be offset by the county land use plan's ability to direct the location, use, and density of development, regardless of how the state will permit septic systems in the future.

9 Growth Forecasts

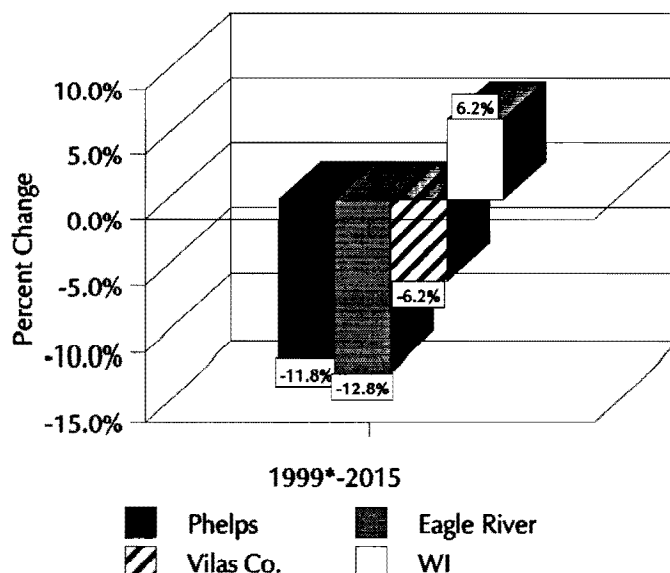
Based on historic and current trends, projections can be made regarding population and housing units. These projections are used to estimate growth rates in the town, and how the *Town of Phelps Year 2020 Comprehensive Master Plan* can best accommodate anticipated growth.

9.1 Population Trends and Projections

Wisconsin Department of Administration Projections

In 1993 the Wisconsin Department of Administration's (WDOA) Demographic Services Center prepared baseline population projections to the year 2015 for the communities and counties of the state. These projections are recognized by the North Central Regional Planning Commission. The WDOA utilized a projection formula that calculates the annual population change over three varying time spans. From this formula, the average annual numerical population change is calculated, which is used to give communities preliminary population projections for a future date. Figure 9-1 illustrates the comparative projected population growth for the town of Phelps, city of Eagle River, Vilas County and the state of Wisconsin using the WDOA's projections.

Figure 9-1
WDOA Comparative Population Projections
Town of Phelps and Selected Areas
1999-2015



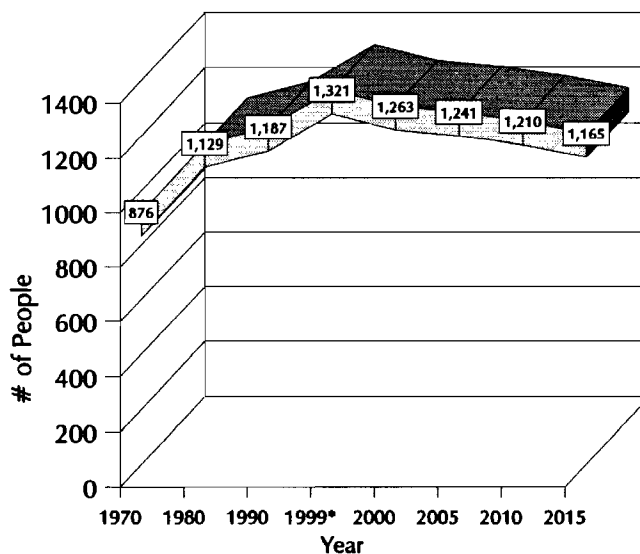
*Wisconsin Department of Administration, Official Population Estimates, 1999.

Source: Wisconsin Demographic Services Center, Official Municipal Population Projections, 1990-2015, June, 1993.

Figure 9-1 illustrates that Phelps, Eagle River, and Vilas County are all projected to experience decreases in population between 1997 and 2015, with the city of Eagle River declining the most at 14.5%, followed by the town of Phelps declining 8.1%, and Vilas County decreasing 4.4%. Therefore, the town of Phelps is projected to experience a population decrease greater than the county, but less than that of Eagle River. The state of Wisconsin as a whole however, is projected to experience a population increase of 7.9% during this time period.

Figure 9-2 depicts the population trends and projections specifically for the town of Phelps from 1970 to the year 2015.

Figure 9-2
Population Trends and WDOA Projections
Town of Phelps
1970-2015



Source: Wisconsin Demographic Services Center, Official Municipal Population Projections, 1990-2015, June, 1993; Wisconsin Department of Administration, Official Population Estimates, 1999.

These baseline projections, prepared by the WDOA, predict a gradual decrease in the town of Phelps's population from the 1999 estimate of 1,321 persons to 1,165 persons in 2015, a decrease of 156 people or 11.8%.

It is important to note that projections are based on past and current population trends; therefore projections are only baseline information. As indicated by the WDOA, actual population levels are subject to the town's geophysical conditions, the tourist economy, local economy, existing zoning restrictions, taxation, and other political policies which influence the business and personal location decisions.

Population Projections Based on Recent Building Permit Data Trends

In addition to the population projections provided by the WDOA, projected population figures may also be derived using recent building permit activity trends. A projection of total housing units through the year 2015 based on recent building permit activity data is provided in Section 9.2. Using this projection of total housing units for the town and the projected number of persons per household, population projections can be determined which reflect the outcome if recent trends were to continue throughout the planning period. Table 9-1 identifies the projected population for the Town of Phelps based on this data, while Figure 9-3 displays this projection in comparison with the WDOA projection.

Table 9-1
Population Projections Based on Total Number of Housing Units as Projected
Using Recent Building Permit Activity Data
Town of Phelps
1990-2015

	1990	1995*	1999*	2000	2005	2010	2015
Total Housing Units	1,436	1,576	1,706	1,737	1,892	2,047	2,202
Occupied Units (31.8% of total units)	457	501	543	552	602	651	700
Persons Per Household	2. 43	2. 24	2. 27	2. 33	2. 25	2. 16	2. 09
Population in Households (93.5% of total population)	1,110	1,124	1,235	1,286	1,355	1,406	1,463
Total Population	1,187	1,202	1,321	1,375	1,450	1,504	1,565

*WDOA Official Municipal Population Estimates, 1995 and 1999.

Source: 1990 U.S. Census Data; WDOA Wisconsin Household Projections by Household Types 1990-2015, whereby the increments used to obtain the projected number of persons per household for the Town of Phelps were based on Vilas County's projection increments; Vilas County Zoning Office, Building Statistics, 1991-1999; Foth & Van Dyke, 1999.

Note: The number of persons per household for 1995 and 1999 were based on WDOA population estimates and the estimated number of total housing units determined using actual building permit data.

The projected total population identified in Table 9-1 reflects the outcome based on recent housing development activity trends continuing. The total housing units is the projected number of total housing units based on recent building permit activity (see Section 9-2, Figure 9-6). The occupied units is based on the total numbers occupied housing units remaining consistent at the 1990 level of 31.8% of total housing units in the town. The projected number of persons per household is based on the projections prepared by the WDOA (Section 9-2, Figure 9-4). The population in households identifies the total number of people projected to live in households as

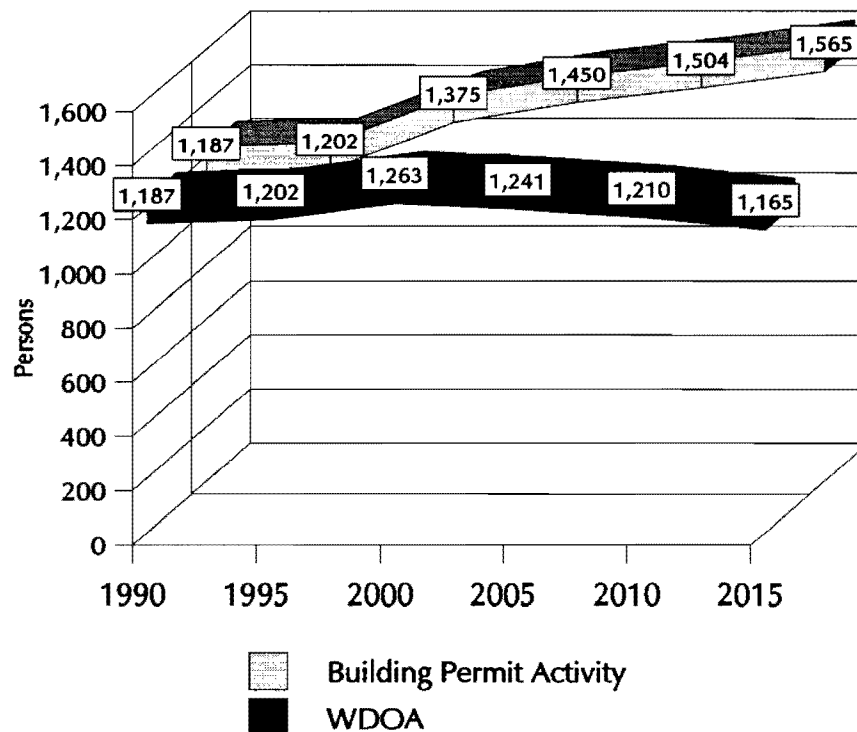
opposed to group quarters (i.e., nursing homes, mental care facilities, etc.), which is based on the 1990 percentage whereby 93.5% of the town's total population lived in households.

Utilizing recent building permit activity data, it is projected the town of Phelps' population will increase steadily from 1,187 persons in 1990 to 1,565 persons in the year 2015, an overall increase of 378 persons or 31.8% over the 25 year period.

Comparative Population Projections

Figure 9-3 illustrates both the WDOA population projection and the projection prepared based on recent building permit activity data, simultaneously.

Figure 9-3
Comparative Population Projections
WDOA Population Projections and Projections Prepared Using
Recent Building Permit Activity Trends
Town of Phelps, 1990-2015



Source: Wisconsin Demographic Services Center, Official Municipal Population Projections, 1990-2015, June, 1993; Wisconsin Department of Administration, Official Population Estimates, 1999. Wisconsin Demographic Services Center, Official Municipal Population Projections, 1990-2015, June, 1993.

The two projections are clearly different, with the WDOA projections showing an overall decrease in the town's population throughout the planning period, while the projection prepared based on recent building permit activity trends shows a significant population increase.

The projections prepared based on recent building permit activity trends are aggressive when compared to the projections provided by the WDOA. It should be noted, however, that the timeframe used in developing the housing unit projections (1991-1999) was a very prosperous one, thus these population projections are based on similar prosperous trends continuing through the year 2015.

However, the projection based on building permit data offers contrasting perspective relative to WDOA forecasted population increases over the plan period. The comparative trend analysis creates a range to target actual land use acreage calculations that tie into and reference trend projections, which is discussed in Section 9.3. The range allows the plan to assess land use impact as a result of acreage demand from population increases.

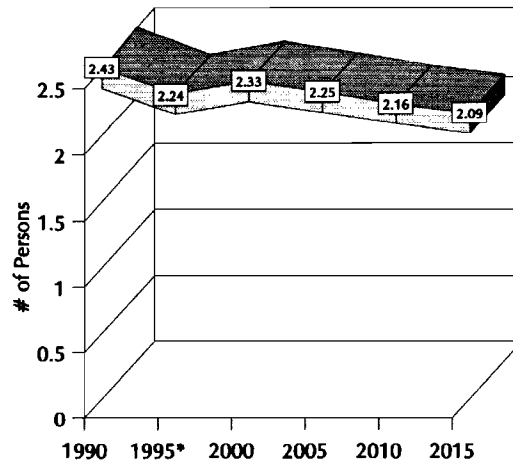
9.2 Housing Unit Projections

Housing unit projections are an important element in preparing the land use plan. Specifically, they are used to allocate required acreage to accommodate the expected increase in residential development throughout the plan design period.

Two housing unit projections are presented in this plan, including 1) housing unit projections based on WDOA population and persons per household projections and U.S. Census data which reflect both year round housing units (which include all occupied units and vacant units which are either for sale or for rent), and vacant other units (which are used for seasonal, recreational, occasional and other uses), and 2) total housing units including all occupied and vacant prepared utilizing 1990 U.S. Census data and 1991-1999 building permit activity trends.

Before these projections can be made, projections of the number of persons per household must first be presented. Figure 9-4 depicts the actual and projected number of persons per household for the Town of Phelps from 1990 to 2015. The increments used to obtain the projected number of persons per household for the town of Phelps were taken from Vilas County's projection increments which were prepared by the WDOA Demographic Services Center.

Figure 9-4
Projected Persons Per Household
Town of Phelps
1990-2015



*The number of persons per household for 1995 was based on the 1995 WDOA population estimate and the estimated number of housing units in the town as determined using 1991-1995 building permit data added to the number of housing units identified in the town by the 1990 U.S. Census.

Source: WDOA Wisconsin Household Projections by Household Types, 1990-2015; 1990 U.S. Census.

The number of persons per occupied housing unit is projected to gradually decline in the town of Phelps between the years 1990 and 2015. In 1990, the actual number of persons per occupied housing unit was 2.43, and by 2015 it is projected that there will be 2.09 persons per occupied housing unit. The planning impact relates to population increases and the associated increase in housing demand. The reduced number of persons per housing unit then relates to the greater acreage demands due to volume.

Housing Unit Projections Based on WDOA Data

As mentioned previously, the housing unit projections prepared using WDOA data reflect both year-round housing units and seasonal/recreational units. Total population figures for the period 1990 to 2015 were based upon the 1990 U.S. Census and the WDOA's population projections. The portion of the population not living in group quarters was based on actual 1990 census data where 93.5 percent of the total population lived in housing units as opposed to group quarters such as nursing homes, mental care facilities, rooming and boarding facilities, etc. Therefore, it was assumed that 93.5 percent of the town's total population through the year 2015 would reside in housing units. The average number of persons per household was based upon the projected increments of household size for Vilas County as prepared by the WDOA's Demographic Services Center.

The total population not living in group quarters divided by the average number of persons per household determined the total number of occupied housing units. It was assumed that occupied units would account for 31.8% of all housing units, vacant year round 3.0 percent, and seasonal/recreational units 65.2%. Table 9-2 provides the projected number of housing units for the town of Phelps to the year 2015.

Table 9-2
Projected Number of Housing Units - WDOA Data
Town of Phelps
1990-2015

Characteristics	1990	1995*	1999*	2000	2005	2010	2015
Population	1,187	1,202	1321	1,263	1,241	1,210	1,165
Population Not in Group Quarters (93.5%)	1,110	1,124	1235	1,181	1,160	1,131	1,089
Person Per Household	2.43	2.24	2.27	2.33	2.25	2.16	2.09
Occupied Units (@31.8%)	457	501	543	507	516	524	521
Vacant Year Round Units (@3.0%)	43	47	51	48	49	49	49
Seasonal/Recreational Units (@65.2%)	936	1,028	1,112	1,039	1,058	1,075	1,068
Total Units	1,436	1,576	1,706	1,594	1,623	1,648	1,638

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, STF1A; WDOA Demographic Service Center, Official Municipal Population Projections 1990-2015.

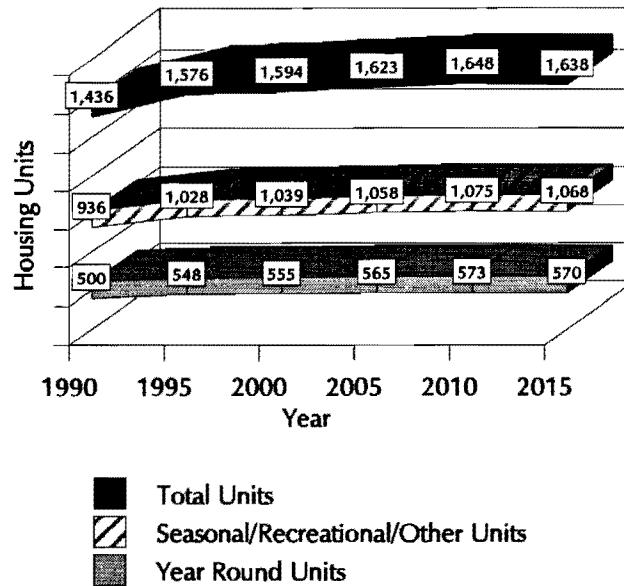
Note: The increments used to obtain the projected household size for the town of Phelps were taken from Vilas County's projection increments according to the Demographic Services Center.

Note: The number of persons per household for 1995 and 1999 were based on WDOA population estimates and the estimated number of total housing units determined using actual building permit data.

County's projection increments according to the Demographic Services Center.

The total number of year round housing units in the town is expected to increase from 500 units in 1990 to 570 units in 2015, a total of 70 units or 14.0% increase. The increase is due to two factors: 1) the population residing in households is projected to decrease only slightly overall by 21 persons, and the average household size is expected to decline at a more rapid rate from 2.43 persons per household in 1990 to 2.09 persons per household in 2015. The projected overall increase in seasonal and recreational housing units for the town of Phelps based on the 1990 and 2015 figures is 132 housing units or 14.1% from 936 units to 1,068 units.

Figure 9-5
Projected Number of Housing Units by Year-Round, Seasonal, and Total Units
Town of Phelps
1990-2015



Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, STF1A; WDOA Demographic Service Center, Official Municipal Population Projections 1990-2015.

The total number of housing units is projected to increase from 1,436 units in 1990 to a high of 1,648 units in 2010, and then decline to 1,638 units by the year 2015.

Figure 9-5 illustrates the total number of housing units projected within the town using WDOA population projections, broken down by year-round, seasonal, and total units.

Based on the total number of housing units counted by the U.S. Census in 1990 (1,436), and adding on the number of new residential developments experienced between 1991 and 1999 (270), there was a total of 1,706 residential housing units in the town of Phelps in 1999. This indicates that in 1999 the town had already surpassed the projected number of total housing units projected for year 2015 as determined using WDOA population and persons per household projections and 1990 U.S. Census data, which projected a high of 1,648 units in 2010.

Therefore, another projection of total housing units has been prepared utilizing the results from the more recent housing development activity data.

Projections Based on Recent Housing Development Activity Trends

An additional measure that assists in the illustration of the growth in residential housing units for the town of Phelps is the housing development activity. Figure 4-4 in Section 4 of this plan displays the amount of building permit activity for new residential housing units which occurred in the town between 1991 and 1999, including single-family, multi-family and mobile home dwellings. Based on this data it was determined that an average of 31 new housing units per year were constructed in the town during this nine-year period.

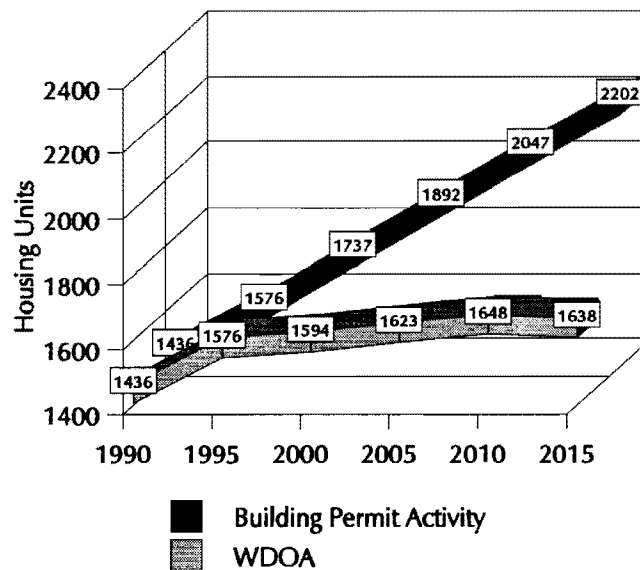
Utilizing the results from the more recent building permit activity data, a straight-line projection of the number of future housing units was made. These projections indicate that the town will experience an addition of approximately 496 housing units between the number estimated to be in the town in the year 2015 based on the 1990 U.S. Census and 1991-1999 building permit data, an increase of 29.1%. This projection is shown in Figure 9-6 in comparison with the projections prepared using WDOA data.

The projections prepared based on housing development activity trends from 1991 to 1999 project that the town will experience an addition of 766 housing units between 1990 and 2015, an increase of 53.3%.

Comparative Housing Projections

Figure 9-6 illustrates both the housing unit projection based on WDOA population projections, and the housing unit projection prepared based on recent building permit activity data.

Figure 9-6
Comparative Housing Unit Projections
Based on WDOA Population Projections and Recent
Building Permit Activity Trends
Town of Phelps
1990-2015



Source: Wisconsin Demographic Services Center, Official Municipal Population Projections, 1990-2015, June, 1993; Wisconsin Department of Administration, Official Population Estimates, 1999. Wisconsin Demographic Services Center, Official Municipal Population Projections, 1990-2015, June, 1993.

The projections prepared using housing development activity trends from 1991 to 1999 are aggressive when compared to the projections prepared utilizing WDOA data. It should be noted however, that the time frame from 1991 to 1999 was a very prosperous one. The building permit projections, based on that trend continuing through the year 2015, are to be considered optimistic. Utilizing the more current housing development activity trends, it is projected that Phelps will have 2,202 total housing units by the year 2015, an increase of 766 units from 1990 to 2015. In contrast, WDOA data projected the town to have 1,638 total housing units, an increase of 202 units over the planning period. The projections vary by 564 housing units. However, 1999 data shows the town had already surpassed the housing unit projections through the year 2015 as predicted using WDOA data. Therefore, it is likely that the projected number of housing units for the town is closer to a number between the two projections, not as low as the projections prepared using WDOA data, and not as aggressive as the projections using recent housing development activity trends.

9.3 Land Use Acreage Needs

Projections of future land use types are a fundamental element in the development of the Preferred Land Use Plan Map. To achieve "managed growth", demands for acreage to accommodate different land use types must be forecasted and ultimately located on the Preferred Land Use Plan Map.

In the town of Phelps, adequate acreage for planned residential is required to accommodate foreseeable needs and react to anticipated demands.

To accomplish this task, housing unit projections were utilized to develop Table 9-4. The housing unit projections cited in Section 9.2 were revised to account for the surge of recent building activity in the Town so the plan recognized the most optimistic growth demands.

Table 9-4
Residential Acreage Projections
Growth Based on Building Permit Activity

Required Units 1990-2015	Parcel Size	Estimated % of Developments	Potential Dwelling Units	Acreage Requirements
766*				
	10 acres or more	10%	77	770
	5.0 acres	10%	77	385
	2.5 acres	30%	230	575
	1.5 acres	30%	230	345
	1.0 acres	20%	153	153
TOTAL		100%	767**	2,228

* Revised projection based on recent building permit data.

** May not add up to Required Units due to rounding.

Source: Foth & Van Dyke Estimates & Projections

Table 9-4 is based on the average number of housing units (31 new units) that were permitted in the town of Phelps over the last nine years (1991-1999). Table 9-4 is also based on the composition of 100% single family units, which includes mobile homes. As a percentage of land use, single family residential occupies over 95.6 percent of the existing residential land use in the town. The projection is based on the 1990 Census information, and Vilas County Zoning records for the town of Phelps.

As indicated by Table 9-4, approximately 2,228 acres should be anticipated for conversion to residential use during the planning period, assuming the trend of new residential building activity remains relatively consistent. The densities of the unit projections are based on input from the Phelps Master Plan Steering Committee, the preferred land use classifications, and the calculated estimates relative to the location of the anticipated development.

A projection based on the permit activity can also be biased due to the prosperous economic times that have transcended the trend period. However, reliance on the permit projections seems to be a more reliable indicator of future land use needs in the town. Based on Table 9-4, the town of Phelps has already surpassed the WDOA projections for housing units in the town for the year 2015.

Table 9-5
Residential Acreage Projections
Growth Based on WDOA Projections

Required Units 1990-2015	Parcel Size	Estimated % of Developments	Potential Dwelling Units	Acreage Requirements
202				
	10 acres or more	10%	20	200
	5.0 acres	10%	20	100
	2.5 acres	30%	61	153
	1.5 acres	30%	61	92
	1.0 acres	20%	40	40
TOTAL		100%	202	585

Source: WDOA

Table 9-5 is a projection of acreage conversion and need based on WDOA housing unit projections found in Table 9-3 (and Figure 9-6). Table 9-5 is also based on the composition of 100% single family units, which includes mobile homes. As a percentage of land use, single family residential occupies over 95.6% of the existing residential land use in the town.

As indicated by Table 9-5, approximately 585 acres could be converted to accommodate year round and seasonal residential use during the planning period, assuming the trend of new residential building activity remains relatively consistent.

Comparing Tables 9-4 and 9-5, Phelps can expect a range of between 2,228 acres and 585 acres (1,643 acres difference) of land demands and conversion acreage based on the two projections.

Given the town of Phelps's high seasonal residential and commercial demands, and relatively low commercial base in the town, commercial need can be difficult to forecast. To that end, no specific formula was used for the determination of future need. However, due to the effort for downtown revitalization and via the conceptual design plans (discussed in Section 12), specific areas have been targeted for future community and highway commercial, as well as light industrial uses. Please reference Section 11.4, Growth Accommodations, that discusses future commercial areas in the expanded downtown district as well as a proposed light industrial business park.

10 Preferred Land Use Plan Development Strategy

This section describes the strategy used in the development of the Town of Phelps Year 2020 Preferred Land Use Map. The plan development process is equally as important to the Plan as the actual plan map. Planning involves the integration of multiple information sources, all applied to the end product, each important to the process of developing a sound, logical plan.

The town of Phelps development strategy included analysis of historic information, knowledge and analysis of current issues, identification of trends and conditions, and vision for the future acquired through extensive community involvement and learning. The town of Phelps plan development strategy is discussed below.

10.1 Selected Land Use Planning Criteria

The process of planning for future land uses can most realistically be accomplished through evaluation of your existing conditions as compared to the town's future vision. The framework and building process of the Year 2020 Preferred Land Use Map is based upon several different planning criteria, each representing a critical piece of land related information. Each planning criteria is an information "section" in a land use story about Phelps. The incorporation of "sections" creates the text for study, which affords the town the ability to evaluate land use in terms of what is desired compared to what they have. The selected planning criteria are discussed below.

Geographic Information System (GIS) Mapping

GIS mapping technology incorporates land information into a computerized, digital format that allows the ability to view and analyze information in layers. Existing land uses (Map 8-1) were inventoried and mapped. Existing zoning districts (Map 8-3) were mapped and overlaid onto the land use map to view how the land use is regulated, and to see what uses are allowed versus what uses are existing. The resource protection map (Map 8-2) was overlaid on the land use map and zoning map to determine land protection areas within general ownership patterns. Wetlands and county regulated shoreland zones were then overlaid to define undevelopable areas and areas of environmental sensitivity. The GIS mapping allowed the Phelps Master Plan Steering Committee to analyze undevelopable areas and areas under resource protection, as well as examine the town's undeveloped and existing development patterns. The GIS overlays allowed the committee to view land use interactively through evaluation of existing conditions and regulations in the town and how they relate to both existing and proposed development.

Incorporation of Public Input

The planning process depends on public involvement. The Phelps Community Planning Survey (see Appendix 2-1) was the key public involvement tool to incorporate community driven attitudes and opinions relative to land use development and community growth. The survey was

constantly referenced during the planning process to ensure community opinion was the basis for plan development.

In addition to the Community Survey, three public informational meetings were held (see Section 2, Public Participation Process) to update, demonstrate, review, report, and solicit input. All meetings of the Phelps Master Plan Steering Committee were open to the public and conformed to the requirements of the open meetings law.

Incorporation of Goals and Objectives

The goals and objectives outlined in Section 3 of this report were the guiding principles of the planning process.. The goals and objectives were based on the Phelps Community Planning Survey and the direct input from the residents and property owners in the town of Phelps. The Phelps Master Plan Steering Committee held three meetings to develop the goals ad objectives, and hosted a public informational meeting to present and discuss. The Committee periodically reviewed the goals and supporting objectives to facilitate the process of plan development.

Consideration of Needs Analysis

Recommendations and planned improvements identified in Section 5, Public Facilities and Services and in Section 6, Transportation, were analyzed relative to the associated impact and location of planned projects or improvements. The needs analysis was incorporated where planned improvements or recommendations clearly affected future land use and would have to be accounted for in the long term.

10.2 Land Use Trends

The following existing and future land use trends were developed based on the analysis of background data which was presented in previous sections of this report. These trends identify the characteristics which are likely to be experienced within the town throughout the planning period, and also provide direction for the development of the Year 2020 Preferred Land Use Map.

The trends imply major ramifications to land use in the town of Phelps. The trends generally identify land related impacts such as increasing housing demands and residential permit activity, increased tourism activity, demands for rural development with urban-type services, and conversions of resorts to condominium or single family use. The trends were evaluated for impact and served the purpose of stimulating thought. Most of all, the trends demonstrated the need to plan for change and to be proactive in the face of a changing landscape. The trends are highlighted below in Table 10-1.

Table 10-1
Town of Phelps Anticipated Trends

1. Person per household ratios are expected to decline while the demand for larger lot sizes will increase resulting in greater acreage needs to accommodate future growth.
2. Phelps can expect a projected minimum of 202 additional dwelling units (WDOA) and a projected maximum of 766 additional dwelling units (building permit data) over the 20 year planning period. The exact demand will depend on economic factors such as the economy and interest rates.
3. The town can expect continued population increase through the year 2000, and then plateau through the planning period (according to the WDOA). Projections based on building permit data suggest population growth throughout the planning period.
4. The town will likely experience an increase in the development of home occupational businesses spawned by the advancements in computer technology and access to global information (the Internet).
5. The town will continue to experience significant seasonal population increases.
6. Seasonal housing units will continue to be the majority of Phelps' housing stock. However, seasonal unit conversions to permanent housing units will also continue to increase.
7. Lakeshore and river front property will continue to receive the bulk of development pressure responding to market demands.
8. Seasonal and permanent housing demands will increase development pressure along shoreland property.
9. Demand for higher density developments on lakefront properties will increase even more as limited lakefront properties become developed.
10. The town's economic strength is expected to remain in the service sector related to the tourism/recreational industry.
11. Projected traffic volumes will increase along STH 17.
12. Demand will increase for commercial property and development along STH 17 and CTH E.

13. The town will experience increased traffic on local roads which will in turn require additional road maintenance and construction costs.
14. Increased lakeshore development will result in a loss of natural vegetative structure resulting in a reduction in wildlife and fish spawning habitats.
15. According to the WDNR all undeveloped lakes in private ownership could be developed within the next 20 years if present development rates exist.
16. Pressure to withdraw lands currently enrolled in forest management programs will increase to accommodate the demand for future large lot residential developments.
17. The Phelps sanitary sewer system and public water supply system may need to be expanded to handle current and future peak loads.
18. The expansion and/or resale of existing youth/ adult education camps will likely occur over the 20 year planning period.
19. Expansion and/or construction of essential community facilities such as a community center, park, fire station and town hall/administrative building will be needed to accommodate increased demands for these services and facilities.
20. Increased developer interest in condominium development adjacent to lakes and waterways will likely occur to accommodate seasonal and retirement housing demands.
21. The town of Phelps will continue to be a popular seasonal recreation destination to accommodate outdoor activities such as snowmobiling, hiking, fishing, hunting, camping, boating, canoeing and wildlife viewing. These activities will generate user conflicts which will likely require the intervention of local government.
22. The town should anticipate an increase in the demand to provide additional and "more improved" water access sites to accommodate an expected increase in fishing pressure and the use of larger "more specialized" fishing boats.
23. The town should anticipate a nationwide trend toward motorized recreation and high impact tourism.
24. There will an increased demand for larger parcels to accommodate growing recreational land demands.

10.3 Vilas County Lakes Classification System

The Vilas County Lakes Classification System is a way of grouping lakes into separate classes based on their sensitivity to development impacts, while recognizing existing levels of development. A lakes classification system is used to establish zoning and other management strategies to accommodate a level of development and growth compatible with a lake's capacity to support that development.

The Town of Phelps Comprehensive Master Plan incorporates the Vilas County Lakes Classification System for management of land use for properties with direct frontage on lakes and other regulated surface water. The Vilas County Lakes Classification System will regulate densities of the shoreland areas at higher density than indicated by the Preferred Land Use Classification as discussed in Section 11. The Town of Phelps preferred land use classifications will direct the use of property of *all* lands in the town, including shorelands.

10.4 Preferred Land Use Classifications

The final element used to develop the preferred land use plan are land use "classifications". The classifications identify what the town feels are the best and most appropriate land uses, both in the lands' present condition the desired future condition of use. When building the preferred land use plan map, proposed land uses were discussed based on the types of uses that the town felt were of consistent character, use, density, and location relative to the existing development pattern and uses that occupy land. The Town Master Plan Steering Committee evaluated all the planning criteria discussed above and developed twelve (12) preferred land use classifications, as listed below. The preferred land use classifications are discussed in detail in Section 11.

1. Residential (Privately Sewered)
2. Residential (Public Sanitary District)
3. Lakeshore Residential
4. Lakeshore Resort
5. Lakeshore Multi-Family
6. Rural Residential and Agriculture
7. Forestry and Recreation
8. Community and Highway Business (STH 17 Business Corridor)
9. Downtown Business District
10. Business Park
11. Parks and Recreation
12. Education and Recreation

11 Preferred Year 2020 Land Use Development Plan

The draft Year 2020 Preferred Land Use Map presents a concept of how broad classes of land uses fit together to produce an aesthetically pleasing and well-planned community. The map was drafted based on the execution of the development strategy discussed in Section 10. The draft map (11-1) graphically represents the desired arrangement of preferred land uses on the Phelps landscape 20 years into the future.

The primary purpose of the Year 2020 Preferred Land Use Map is to serve as a flexible guide to local officials for the future development of the community. Since planning is an ever evolving process, the *Phelps Comprehensive Master Plan* as a whole should be viewed as a guide to assist in the town's decision-making process. The plan will have to be reevaluated and adjusted from time to time in accordance with changing trends and conditions. The plan should not be viewed as a rigid or final document to be adhered to for the next 20 years, but rather as a flexible guide that is adaptable to the dynamic conditions and opportunities occurring within the town.

11.1 Preferred Land Use Classifications

Land use does not always fit well with the predominant land use control mechanism of zoning. Typical zoning districts (of which Vilas County is no different) permit uses within a particular zone that may not fit the characteristic of the existing land use within the zoning district. The draft Year 2020 Preferred Land Use Map must not only react to existing development patterns and associated conflicts, but it must also evaluate the need to accommodate future development patterns. The plan must find a way to encapsulate what is existing with what is desired in terms of preferred use.

The preferred land use classifications generalize the land use into categories. Each land use class "title" identifies what the town feels is the desired future condition of lands defined within the class boundary. The preferred land use classifications are not zoning districts and do not have the authority of zoning. Although the map and preferred land use classifications are advisory, they are intended to be used by town officials as a guide when reviewing lot splits, rezoning requests, and potential revisions to the town zoning map.

When building the Year 2020 Preferred Land Use Map, proposed land uses were discussed based on the types of uses the town felt were of consistent character, use, and location relative to the existing development pattern and uses that occupy land. Each preferred land use class has a distinct purpose and area designation on the Year 2020 Preferred Land Use Map. There are 12 classes of preferred land use. Each preferred land use class has suggested permitted and conditional uses, specific to the town of Phelps. The uses were suggested through Committee consensus and are attached in Appendix 11-1. The town's preferred land uses were then compared to permitted and conditional uses allowed in the county zoning districts (Appendix 11-2). Recommendations for implementation through the use of county zoning were developed via the comparison of permitted and conditional uses. Where the committee found a favorable match, that county zoning district is recommended for implementation. In cases where

acceptable matches were not evident, the recommendation is for modification to existing county zoning districts, or creation of a new zoning district (home-based businesses are allowed within any preferred land use classification as long as the use conforms to local or county restrictions). The preferred land use classifications are discussed below.

Residential (Privately Sewered)

The objective of this classification is to maintain high quality single family residences in areas existing with and targeted for single family residential. Densities will be established at a minimum of 1.5 acres per lot and shall stay in character with existing developments within the classification. Density should be managed to allow adequate space for the replacement of private on-site sewage treatment systems while minimizing aesthetic and water quality impacts.

Residential (Public Sanitary District)

This land use class is intended for residential development within a public sanitary district, outside of the downtown business district. Continued infill of vacant lands within this classification would be encouraged and managed at densities (one acre per lot is recommended) which would not preclude the feasibility of public water or sewer infrastructure systems. Clustered residential would also be encouraged. Multi-family and elderly housing developments would be entertained but subject to specific site design, architectural, size and density standards.

Lakeshore Residential

This land use class was created to maintain the lake shoreline areas with high quality single family residences. Densities would be regulated within the Vilas County Lakes Classification System, and would be subject to county shoreland zoning restrictions. Backlot properties (lots which do not front on a navigable body of water or which do not have 50% or more of their total area within 300 feet of a navigable body of water) within the classification should have minimum 1.5 acre lot sizes. These properties should be developed and improved to minimize their impacts on the natural shoreline aesthetics, water quality, fish and wildlife habitat and other public natural resource values of the lakes. Property owners should be encouraged to go "beyond" the minimum restrictions by increasing the setback distance of new structures, minimizing the amount of impermeable surfaces (roof, pavement) to limit runoff, and minimizing shoreland vegetation clearing. Other uses of these properties should be limited as protection for the high property values of these lake residences.

Lakeshore Resort

These lakeshore areas have existing resort development interspersed with lake residential properties. The segments of lake shoreline properties identified for this land use allow commercial resorts as regulated by the Vilas County Lakes Classification System and Shoreland Zoning Ordinance. Backlot properties within the classification should have minimum 1.5 acre lot sizes. Existing resorts would continue to be intermixed with lake seasonal and permanent residences. New resort developments and improvements should be developed in such a way as to minimize their aesthetic and other impacts on both the adjacent properties and the lake itself. Such developments would help to minimize erosion, sedimentation and other water quality impacts, preserve natural shoreline aesthetics, and prevent impairment of fish and wildlife habitat. Conversion of use from existing resorts to residential, in any capacity, will be redesignated to the lakeshore multi-family classification and will be subject to the provisions provided therein. Development of new resorts within any area of the town should be subject to a town conditional use permit and be in accordance with the Vilas County Lakes Classification System and Shoreland Zoning Ordinance.

Lakeshore Multi-Family (Duplex/Condominium/Townhouse)

The lakeshore multi-family classification is designed to address and reclassify property that is under the process of use conversion from a commercial resort to residential uses such as multi-family, single-family and/or condominium uses. The intent of this classification is to address and regulate the property conversion as to minimize negative impact on neighboring properties. All uses designated with this classification will be subject to the Vilas County Lakes Classification System and Shoreland Zoning Ordinance, as well as to a town conditional use process. Among the factors to be considered for conditional use should be elements such as large buffer zones, minimum lot widths and other factors designed to protect the privacy of the neighboring property owners.

Rural Residential and Agriculture

The rural residential and agriculture classification is designed to provide for low density single family residences located in natural forest, agricultural, or open, rural settings. Individual parcels should remain 2.5 acres or larger in size. Cluster development is encouraged through allowing higher densities in exchange for deed restrictions maintaining the remaining area as open space and/or forest land. This classification also acknowledges the coexistence of livestock, active farm operations, hobby and tree farm type uses.

Forestry and Recreation

The primary intent of this classification is to encourage the continuation of large tracts of forested areas which are managed to produce forest products and/or maintained in wooded use, in concert with preserving a diversity of vegetative and biological communities. These lands are also kept to provide passive recreational opportunities such as hunting, fishing, hiking, skiing,

camping, and snowmobiling. Single family housing is preferred. Lots would maintain a 10 acre minimum size.

Community and Highway Business (STH 17 Business Corridor)

This classification is designed specifically for the STH 17 "business corridor" extending from the downtown business district to CTH A. This class would allow for the in-fill and/or conversion of existing developments and vacant property to commercial use, and acknowledges existing residential development will continue to occur. Commercial uses would be mixed between highway (tourist dependent) and community service. Commercial development would promote a northwoods character theme, and would be regulated by design review standards to regulate building size and appearance. Density of development along the corridor shall be one lot deep (2.5 acre minimum lot size) with minimum frontage of 200 feet on STH 17, and should consider the possibilities of future public sewer and water infrastructure systems if possible. Light industrial uses would be permitted with a conditional use permit.

Downtown Business District

This classification would allow for commercial uses as well as single and multi-family housing. Commercial uses mixed between highway (tourist dependent) and community service is preferred. Development would promote a northwoods character theme. New developments and major modifications in this area shall be required to adhere to design review standards which will regulate building size and appearance, landscaping and parking, and should be tailored to pedestrian friendly, attractive businesses that enhance the community identity and northwoods character.

Business Park

The classification would allow development of light, non-polluting industry or businesses. The businesses potentially to be located in this class would not be in character within the intent of the downtown business district. These areas also provide reasonable access to three-phase power. Aesthetics and screening from the highway are important considerations for any proposed development. Development of the site, if carefully orchestrated could serve to satisfy two needs/goals simultaneously. The business park could be platted to retain wooded character and/or open space, and multi-use trails and other recreational facilities could be developed throughout the interconnected open space network around the commercial sites.

Parks and Recreation

This classification is designed to allow for the continuation of recreational activities in the town.

Education and Recreation

This classification acknowledges year round residential and recreational activities often associated with the intent of camps and/or other recreational activities. Building and infrastructure support facilities such as housing, administration and maintenance buildings, group meeting quarters, parking and wastewater systems would be permitted if in conformance with applicable Vilas County Ordinance regulations.

11.2 Year 2020 Preferred Land Use Plan Map

The preferred land use map represents and addresses issues approximately 20 years into the future, while at the same time addressing critical land use issues that exist today. The preferred development pattern was built with the land use classifications discussed in Section 11.1. Map 11-1 does not specifically designate individual areas within the classification for development, rather it designates the *entire area* for that use to occur. The plan does, through the preferred land use classifications, identify the *type and density* of land use that is to occur within the classification.

By no means does the designation of use indicated by the land use classification mean the entire area be developed with the identified use, only that the use allowed be consistent in type, location, and density of development in the event of a land conversion.

The development plan consists of recommendations regarding the various land uses in the town including residential, commercial, light industrial, and parks which promote a sound, orderly and attractive community. The recommendations are tied specifically to the map in terms of the preferred type and location of use. A discussion of the general areas of preferred development are discussed below.

Residential Development

Residential development is planned for a majority of the available land in the town of Phelps, as a majority of the preferred land use classifications allow for some form of residential use. The density, or lot size associated with the development, will be the determining factor of how the area is perceived. It is anticipated the lakeshore areas will continue to be a focal area for single-family development. A majority of the town (those lands not in public ownership) is planned for rural residential use with a two and one-half acre minimum lot size.

As indicated by the Phelps Activity Center Concept Plan (Map 12-1), multi-family development has been targeted adjacent to CTH E near the commercial core of the Phelps. Additional seasonal multi-family development is anticipated to help meet seasonal housing demands and support expansion of the Phelps's commercial base. Multi-family would also be allowed in the residential medium density class that is associated with the Phelps Sanitary District No.1. The availability of sewer and water will be a determining factor relative to the proposed number of units proposed in a new multi-unit development and the ability of the town to permit the use.

Commercial/Business Development

A more detailed description of planned business and commercial activity is described in Section 12, Downtown Development and Design, as the planned business areas are strongly associated with the Phelps Central Business District (Map 12-1 and 12-2) and the general downtown area. Generally, the central business district can be described as a one block area extending along STH 17 and the CTH E intersection, bound by West Hill Road on the north and Church Street on the south. A large majority of existing business use is located in this area. Infill of vacant parcels and modification of existing businesses to a northwoods theme is planned.

Map 12-3, called Lakefront Redevelopment Opportunities discussed in Section 12, also is targeted for future commercial and community business. Approximately 18 acres was visualized for expansion of the central business district set back along the lakeshore of North Twin Lake. The development that would occur in this area would be low density (approximately 150'-200' between buildings) sensitive to site design, environmental impact and aesthetics. The plan also incorporates pedestrian access and trail development along a planned green space area along the shoreline of North Twin and the downtown. It is anticipated the development of this area would occur after vacant properties in the downtown have been occupied and the market demand warrants expansion.

Phelps' STH 17 commercial corridor, extending east from the downtown to the intersection with CTH A, has been identified as an area dedicated to community and highway business development. This area has been planned for development of commercial-type uses that do not fit well into the theme and design concepts of the downtown, but yet are commercial orientated. The STH 17 corridor is planned to be one lot deep, with access frontage onto STH 17.

Industrial Development

The Preferred 2020 Land Use Plan does identify 68.4 acres for a potential business park that would cater to environmentally friendly light industrial use. The town does recognize the primary "industry" will continue to be recreation and tourism. However, if a situation arose to accommodate light industry, this potential location has been identified. The location, on CTH A, just south of the terminus of the STH 17 commercial corridor, would be removed from existing residential areas and would be in close proximity to highway access. The area is not within the Phelps Sanitary District, so services such as sewer and water to the site would need to be closely evaluated. Development typical of light industrial also have power needs and waste disposal issues that would need to be examined on a case by case basis.

It is recommended that the town of Phelps further study the capability and accommodation of light industry in the town. Services and infrastructure are necessary features of an area that is to accommodate development of that nature. Town control of lands for siting control, technical or financial incentives, or marketing the town for future business development will necessitate additional study.

Parks and Open Space

To accommodate existing seasonal demands and to address the potential for single family residential development, the plan, in concert with the Phelps Outdoor Recreation Plan completed in 1995, recommends the acquisition of two downtown "common" areas and park facilities (see Map 12-1). Specific recommendations are as follows:

- ♦ **Downtown North Twin Access**
As discussed in Section 9, parcel acquisition is a priority. The location is key as it's located lakeward of the 90 degree turn on STH 17, and provides strategic visual and physical access to North Twin Lake and to the downtown. The town has planned facility improvements at the site. The parcel should be targeted as first acquisition priority.
- ♦ **North Twin Beach**
The ¼ acre beach site along STH 17 has approximately 200' of frontage on North Twin Lake. Acquisition is a priority, but is second to the downtown North Twin access site.
- ♦ **Wavering Park**
Wavering Park is a 42.5 acre park located along STH 17 between School Road on the east and Co-op Road on the west. Wavering Park is a developed recreational area serving the active and passive recreational needs of the Phelps seasonal and permanent population. Due to the passive recreational needs provided through the expansive open space and outdoor recreation opportunity provided with the Nicolet National Forest, active needs are of the only recreational element that need be reviewed. Although Wavering Park is the only active developed park in the town, it provides adequately for the needs and opportunity of Phelps residents. Please see the planning report Wavering Park Concept Plan, 1998, a conceptual site design and use plan relative to long term park development opportunity.

11.3 Growth Accommodations

Table 11-1 displays the Town of Phelps Year 2020 Preferred Land Use Plan Classifications as they pertain to the Year 2020 Preferred Land Use Map. Each land use classification area was calculated in terms of the gross acreage area designated for its particular use. Existing developed lands, and lands that cannot be developed due to physical characteristics such as wetlands and surface water, were then deducted from the gross acreage of the preferred class to arrive at the "available" land calculation (lands that could be developed). The established minimum lot sizes identified in the preferred land use classification were then applied to the "available" land category to arrive at the number of potential housing units that could be constructed within the classification.

Table 11-1
Town of Phelps Year 2020 Preferred Land Use Plan Classification Acreages
(Map 11-1)

Land Use Plan Classifications	Total Acres	Wetlands/Water/ Developed Land	Available Land	Available Land Minus 20% Flexibility Factor	Preferred Minimum Lot Size	Potential Dwelling Units
Forestry and Recreation	3,445.4	746.0	2,699.4	2,159.5	10.0	216.0
Forestry and Recreation (Public)	36,471.4	36,471.4	0.0	0.0	---	0.0
Rural Residential and Agriculture	10,107.8	1,774.0	8,333.8	6,667.0	2.5	2,666.8
Residential (Privately Sewered)	1,094.2	183.2	911.0	728.8	1.5*	485.9
Residential (Public Sanitary Dist.)	674.4	217.3	457.1	365.7	1.0	365.7
Lakeshore Residential	6,149.0	2,240.6	3,908.4	3,126.7	1.5*	2,084.5
Lakeshore Resort	398.6	180.9	217.7	174.2	1.5*	116.1
Lakeshore Multi-Family	3.7	3.7	0.0	0.0	1.5*	0.0
Community and Highway Business	61.0	22.8	38.2	30.6	N/A	
Downtown Business District	232.5	138.2	94.3	75.4	N/A	
Business Park	0.0	0.0	0.0	0.0	N/A	
Parks and Recreation	73.4	20.3	53.1	42.5	N/A	
Education and Recreation	27.3	27.3	0.0	0.0	N/A	
Water	10,997.1	10,997.1	0.0	0.0	N/A	
Total	69,735.8	53,022.8	16,713.0	13,370.4		5,934.9

* Preferred minimum lot size indicated for backlot(s) only. Lot size(s) for on-water lots will be determined by the Vilas County Shoreland Zoning Ordinance (Lakes Classification System).

Projections 1990-2015

- ♦ Foth & Van Dyke Housing Unit Projections based on WDOA and 1990 Census Data (1990-2015) = 202 Units
- Approximately 250 Units were added from 1990 to 1998 -250
- 48 Units Over Projection
- ♦ Foth & Van Dyke 1990-2015 Housing Unit Projections = 766 Units
- based on recent building permit activity (1990-98) -250
- 516 Remaining Units

In terms of determining the relative "restrictiveness" of the preferred land use plan, comparisons had to be made to the town of Phelps growth forecasts discussed in Section 9. Adjusted housing unit projections formulated from town of Phelps permit data and from the Wisconsin Department of Administration were compared to the available housing unit calculation. The data suggests ample available acreage exists in all residential classifications to accommodate even the most aggressive growth scenarios. The Year 2020 Preferred Land Use Plan Map has not restricted the Town's ability to grow in specific areas or locations. The preferred land use classifications are designed to assure existing and future landowners or residents that the future land uses shall be in conformance with the character of the preferred land use classifications.

12 Downtown Development & Design

The town of Phelps identified the unincorporated community of Phelps, what is referred to as the "downtown" area, as the focus for economic growth and revitalization. Creating an aesthetically pleasing and economically viable downtown became the central focus for the Phelps Community Development Corporation (PCDC), which contracted with Foth and Van Dyke as a part of the comprehensive master planning process to address the downtown's image, character, aesthetics.

The top three priority issues identified in the issue identification workshop discussed in Section 2 related to business and economic development, and downtown (and associated waterfront) revitalization and beautification. To address this concern, special attention was appropriated to the downtown and associated waterfront areas of Phelps to plan for growth, beautification, and identity to stimulate economic opportunity, yet preserve the community's small town character. This section of the comprehensive master plan devotes guidance through a proposed concept plan for the continued development and improvement of the downtown area. This concept plan shall be used to help facilitate the desired future state of the downtown area.

12.1 Existing Conditions

The Phelps "downtown" area is the business core of the town. The downtown extends along STH 17 and CTH E as represented on Maps 11-1 and 12-1. Many of the existing businesses are housed in original historical buildings built in the late 1800's and early 1900's. These consist of two restaurants, a grocery and sporting goods store, one motel, a service station, bank, post office, bait shop, a marine dealership, one tavern, the Phelps Community High School, town offices, the Northwoods Medical Facility complex, and several specialty shops. Businesses found in the downtown cater to both the seasonal traveler and town residents, as the city of Eagle River is the closest municipality (17 miles) to provide more typical "urban type" services.

The downtown area possess a unique advantage feature as it faces North Twin Lake. The downtown has exposure and the opportunity to the lakeshore which can translate to both community identity, tourism, and expansion potentials relative to sensitive commercial and business development. The Phelps Community Development Corporation (PCDC) has also been facilitating redevelopment efforts relative to facade improvements, building renovations and beatification efforts prior to and during the master planning process. The PCDC should be credited with the foresight and energy needed to champion Phelps's downtown development and community vision.

12.2 Downtown and Waterfront Directives

Several of the goals and objectives outlined in Section 3 of this plan speak to the importance of guiding future development and growth in the downtown and waterfront areas. To assist in the development of the downtown conceptual design plans, a workshop was held with the PCDC and downtown business owners on May 14, 1998 to develop design directives from which the downtown conceptual design plans could be rendered. The workshop focused on desires and concerns of the downtown and waterfront, both real and perceived, based on both the existing and desired future conditions of the downtown. Table 12-1 lists 31 responses as the result of the workshop effort. In addition to the 24 desires of the participants, seven concerns were identified which could act as barriers to the development or redevelopment to the downtown and the associated waterfront. The concerns have been summarized in Table 12-2.

Generally, the workshop participants felt the downtown has substantial opportunity to revitalize its appeal based on the proximity to the lakefront and the character of the buildings. Business and structure appearance improvements, landscaping and street scaping, increased pedestrian access from the lake and from the highway, and strategically acquired property along North Twin Lake should provide the downtown community character. New building design, or modification to existing structures, should portray the rustic, northwoods logging theme upon which the town was founded. Parking should be coordinated and provided as to minimize the vehicle/pedestrian conflict. Utilities should be buried. Landscaping should incorporate benches, flower boxes, and increased pedestrian access to the storefronts and to the waterfront. Downtown lighting should be established to identify the visitor they are in the "downtown". Signage and storefront lighting should be coordinated and standardized. Trail developments should tie the lakefront to the Phelps School and to Wavering Park. New commercial activity should be developed and coordinated with the town's land use plan to create a vibrant, local center for business and leisure.

Both the desires and the concerns were used by Dean Proctor Design, a landscape and urban design architect, to develop draft downtown concept plans. The draft plans were reviewed and redrafted several times by the PCDC and the Master Plan Steering Committee to meet the intent of the future desired state of the downtown area.

Table 12-1
Phelps Downtown Development Desires

Desires	
1	Power lines will be removed from "Main Street" area.
2	Contract for installation of antique street lights.
3	Facade designs have been developed and accepted by majority of downtown owners.
4	Acquire lakefront property, specifically across from the hospital and in the existing pier area.
5	Repave streets with sidewalk/curb and gutter.
6	Improve pedestrian flow from downtown area to town hall, library, church, fire station, Wavering Park and the school.
7	Potential for landward interconnecting walking paths.
8	Establish logging theme. <ul style="list-style-type: none"> ♦ Signage ♦ Building materials. ♦ Simple ♦ Rustic.
9	Entrance sign/planting. <ul style="list-style-type: none"> ♦ Establish focal point (Hwy. 17/Deerskin Road).
10	Improve downtown parking. <ul style="list-style-type: none"> ♦ Provide "node" lots. ♦ More defined parking on west side of street. ♦ Consider central parking lot north of Cozy Corner.
11	Provide snowmobile/trailer parking adjacent snowmobile trail.
12	Erect community events sign. <ul style="list-style-type: none"> ♦ Chamber information center. ♦ Centrally located.
13	Stay "sporting" focused (i.e., fishing/outdoor activities).
14	Rehab pier area downtown. <ul style="list-style-type: none"> ♦ Boats. ♦ Fishing pier.

Table 12-1 continued

Desires	
15	Boardwalk north of existing pier along lakefront (establish public easement). Development fronting easement viewing lake - buffer between lake and development (establish public beach).
16	Erect gazebo linked to fishing pier on downtown North Twin access site.
17	Develop building codes to direct building appearance.
18	Benches/flower boxes/trees.
19	Consider year-round resort. ♦ "Class establishment" north of grocery store.
20	Consider town house/cluster residential adjacent lake north of downtown.
21	Golf course (northeast) of downtown/associated with housing.
22	Establish housing improvement program (ex. Hill Street).
23	Need for boat trailer parking.
24	Consider information center by phone.

Table 12-2
Phelps Downtown Development Concerns

Concerns	
1	"Curve" to downtown area. ♦ Barrier to truck traffic.
2	Value of buildings. Are they feasible to rehab?
3	Contamination of abandoned saw mill.
4	Existing on-street parking produces congestion.
5	Land availability (ability to acquire lakefront property).
6	Some existing buildings out of character.
7	Funding to accommodate improvements.

12.3 Proposed Downtown Concept Plan

Preferred Downtown Land Use

Based upon the desires and the concerns facilitated during the downtown development workshop, and the review and study of the draft concepts, the Phelps downtown conceptual design plans were developed (see Maps 12-1 through 12-3). Map 12-1, the Phelps Activity Centers Concept Plan, represents an overview of the expanded downtown area. The Activity Centers Plan focuses on the coordination of activity and development in the greater downtown area, and how development and improvements can be focused and planned within its context to the activity center as well as its relationship to the downtown as a whole. Map 12-2 is an aerial, birds-eye perspective of the Phelps downtown central business district in its desired future state. Map 12-3, called Lakeshore Redevelopment Opportunities, encapsulates conceptual ideas relative to an expanded downtown area to the north of the central business district. It is important to note the land area portrayed in Map 12-3 is vacant and under private ownership. The conceptual plans represented in this area are the preferred visions of the community and need to be coordinated with and is subject to private control.

The plans feature a balanced mix of residential and commercial uses. Community commercial is planned for in-fill where vacancies allow in the central business district. The lakeshore redevelopment concept plan (Map 12-3) visualizes community commercial uses along a proposed frontage road in an attempt to expand the business district while utilizing the advantages offered by North Twin Lake frontage (the plan design would offer businesses and visitors an uncluttered view and access). Single family residences would be clustered landward of the expanded business district and lakeward of CTH E. The concept plan recommends low density multi-family residential development along the perimeter area. Three "common" or greenspace areas are proposed to accommodate pedestrians and visitors by providing trails, restrooms and public access to the waterfront for both leisure and coordinated activities. A network of trails and/or extended sidewalks are proposed to provide access to commercial sites linking the central business district to activity centers as indicated on Map 12-1.

The plan recommends formalizing parking on STH 17 and along CTH E. It is very important to coordinate parking improvements and/or limitations with the Wisconsin Department of Transportation District 7, as STH 17 is planned for reconstruction and improvements which include the central business district in 2004. Street scape improvements must also be coordinated with Wisconsin Department of Transportation to ensure viability of any investment and improvement. Shared roadway trail improvements should be planned for the STH 17 improvement project to reduce costs. In addition, immediate steps should be taken to develop off-street parking areas adjacent to existing businesses on private property as well.

In addition, Map 12-3 also portrays a ground, eye-level perspective of the central business district street scape, to show more detail relative to the future character of Phelps STH 17 "main street" architecture, visual appeal, and pedestrian connections. The street scape designs should be consulted as development proposals are being reviewed or as improvements are made.

12.4 Recommended Downtown Implementation Strategy

Several implementation techniques are recommended to achieve the desired results of downtown area improvements. The recommendations are key to plan success. The implementation strategy includes the following recommendations.

1. Develop design review standards for commercial and multi-family developments.
To ensure new development is within the intent of the concept plan and more specifically "small town character," design review standards should be developed. The standards should address building appearance, landscaping, signage, lighting, parking and green space areas relative to proposed developments.
2. Acquire proposed public green space areas.
Two critical green space areas should be acquired to facilitate perpetual access to the waterfront including the sites known as North Twin Beach and the downtown North Twin access. Public access to North Twin is an essential element to the success and realization of downtown improvements. Substantial investment of public piers, a community information center, gazebo, and trail connections are key planned features on privately held property. Although the C.M. Christiansen Co. currently owns and has granted easements to the Town for use and access, negotiated terms with C.M. Christiansen Co., for town ownership should be completed. Stewardship grant applications to the WDNR should be pursued to this end.
3. Develop pedestrian access.
Trails and sidewalks should be developed which link the downtown central business district to other activity centers in the town. Trails should tie the downtown North Twin access to North Twin Beach and to the North Twin Lake boat access. In addition, trail connections to the lakeshore redevelopment area (as developed) is preferred. The town should pursue a grant through Wisconsin Department of Transportation Enhancements Program or to the Wisconsin Stewardship Program to initiate this effort.
4. Consider establishing a business improvement district (BID) in the downtown.
A business improvement district can help cover the costs of commercial improvements, including street scape development. Due to the low density of businesses in the central business district, the BID process may not generate substantial funding, however. The process is recommended for evaluation as an organized business improvement district may have the ability to leverage funds through grant programs. Additional information regarding the Wisconsin Business Improvement District program is detailed in Chapter 13, Implementation Strategy.

13 Implementation Strategy

The final element in the comprehensive planning process is the implementation of the Year 2020 Comprehensive Master Plan, specifically the Year 2020 Preferred Land Use Map. The development of a land use plan is an exhaustive and labor intensive process. Often, little energy is reserved to take the steps necessary to begin "working" the plan. However, the plan's ultimate success will be tied to the energy and resources which are applied to the plan's implementation strategy, as the implementation is the critical link between planning and positive action in the town.

Although the implementation strategy was discussed throughout the planning effort, a formalized implementation strategy was never chosen due to the lack of consensus relative to the preferred land uses and Year 2020 Preferred Land Use Map. The implementation strategy that follows includes a summary of issues and items discussed by the Master Plan Steering Committee. The short-term action plan was designed to facilitate the immediate policies and directives identified by the planning process, assuming at the time that the plan would be adopted and implemented by the town of Phelps. In addition, voluntary implementation tools which property owners may become involved in are identified.

Implementation of the plan will take the town some time and money to adopt the procedures and recommendations necessary to work plan initiatives into administrative procedure. Planning, in and of itself, has strength only to identify the path to Phelps's long-term vision. Implementation tools, coordinated and applied, actually develop the ideas over time, incrementally building vision to reality.

13.1 Implementation Tools

An overview of the recommended implementation tools are contained in this section. The recommended tools include those which have been identified as part of the action plan. In addition to the recommended tools, an overview of optional/informational implementation tools is also provided. The optional tools are provided for future reference by the town, should the town decide to pursue other options to aid in achieving the goals and objectives of the plan.

The following implementation tools have been identified as the proposed tools to be used by town decision makers to achieve the vision, goals, and objectives of this plan. These tools are supported strongly by the town in terms of both being able to accomplish the objectives of the plan, and the ability of the town to administer them effectively.

Zoning Ordinance

The preferred land uses need to be compared to the existing county zoning districts to determine compatibility of preferred use to existing zoning regulation. The permitted and conditional use matrix that was being facilitated by Vilas County UW-Extension should be used as a guide to coordinate the town's ideas with county regulation. At the conclusion of the plan effort, Phelps

was working through the process of comparing existing zoning districts to the preferred uses identified in the plan. In any event, the town will need to revisit the preferred land uses and the associated permitted and conditional uses. The town will need to work with Vilas County to discuss any preferred changes to Phelps zoning or any changes to the county zoning ordinance, as the town has adopted and is under county zoning.

Zoning is one major implementation tool to achieve the preferred land uses identified in a communities plan. The preferred land uses should "drive" the development of the zoning ordinance provisions including zoning district descriptions, allowed densities, permitted uses, conditional uses and the zoning map. Land division ordinances are another typical regulatory control that can be used to ensure conformance and consistency with local plans (*see related information on land division ordinances as an implementation tool*).

The adoption of a Phelps land use plan will inform the county on town planning vision, goals, objectives, and policies. It will also explain the rationale behind these plan recommendations. These efforts should put the town in a strong position to work with the county on implementing zoning controls that are consistent with the town plan. For example, the draft town land use plan proposes to designate most of the town with some form of residential use. This recommendation can be used to inform the county that creation and/or expansion of more intensive zoning districts such as general business should be kept to defined areas, such as the STH 17 corridor or the Phelps downtown area..

To achieve the preferred land uses, a variety of zoning amendment options are available to the town. These include the following:

- Option 1 Utilize Existing Vilas County Zoning Districts
- Option 2 Propose new Vilas County zoning districts and/or modifications to the existing district descriptions.
- Option 3 Propose unique town zoning as an appendix to the Vilas County zoning ordinance.
- Option 4 Establish a town zoning ordinance including town administration and enforcement.
- Option 5 Proceed with pursuing a combination of Option 1 with Options 2 and/or 3.

Option 1 Utilize Existing Vilas County Zoning Districts.

The draft Phelps Year 2020 Preferred Land Use Map designates town lands into 12 classifications. Appendix 11-1 identifies the preferred permitted and conditional uses within each of the proposed classifications. Below is a general discussion of the advantages and disadvantages between proposed year 2020 land use classifications and county zoning districts.

Advantages

- ♦ County staff would continue to administer zoning.
- ♦ Adherence to the county zoning districts would cause less confusion for county staff and town property owners.
- ♦ County Board approval of proposed zoning map amendments may be easier to achieve.

Disadvantages

- ♦ The existing zoning districts may not enable the town to achieve all of the "desired future condition" of the preferred land use classifications and policies as indicated above.

Option 2 Propose new Vilas County zoning districts and/or modifications to the existing zoning district descriptions.

The town would need to petition the county for zoning ordinance amendments that would affect the entire county. The town's permitted and conditional use matrix would need to be consulted to compare to the existing county districts to determine compatibility.

Advantages

- ♦ Other towns may be in support of similar modifications and could provide political support for the changes.
- ♦ If approved, the town would be able to create a better match between the zoning districts and preferred land uses.
- ♦ County staff would continue to administer zoning.

Disadvantages

- ♦ Changes would affect the entire county and may not be politically supported by the County Zoning Committee, Zoning staff, or County Board.
- ♦ More zoning districts may make the existing county ordinance more complex and difficult to administer.
- ♦ A major challenge facing the county will be to integrate the desires of various towns to best address the issue of regulating mixed use development that would conform to a land use plan.
- ♦ The time frame involved may cause a lapse in regulation. town may have a land use plan done and the county zoning districts may not change for a 2+ years.

Option 3 Propose unique town zoning as an appendix to the Vilas County Zoning Ordinance.

The town could petition to have the town's zoning district descriptions and related text and map stand alone as an appendix to the County Zoning Ordinance.

The county could still administer the town's zoning, but the zoning could be quite different from the countywide zoning provisions.

Advantages

- ♦ The town could propose their own unique zoning districts, permitted uses and conditional uses that will better achieve the "desired future conditions" of the preferred land uses. The county could still administer this as a more or less stand alone zoning ordinance for the town.

Disadvantages

- ♦ Creating unique zoning districts and map for a single town may not be politically supported by the county. Other municipalities may wish to do the same thing, creating a wide diversity of zoning provisions to try to interpret and administer.
- ♦ The county zoning ordinance would become even more complex. Administration could be very difficult and time consuming for the zoning staff.

Option 4 Establish a town zoning ordinance including town administration and enforcement.

The town could draft their own zoning ordinance. This would require county board approval to establish. Also the county board would have "veto" power over future amendments to the town's ordinance.

Advantages

- ♦ This option would provide for the greatest amount of "local control" over zoning decisions.
- ♦ The zoning districts and other ordinance provisions could be tailor made to best achieve the desired future conditions in each land use management area. Administration of this option could be achieved in a variety of ways. An alternative to total town administration could involve 66.30 intergovernmental agreements to contract with the county or an adjacent town for zoning administration and enforcement.

Disadvantages

- ♦ This would be a more expensive option as it would require funding zoning administration and enforcement (including legal expenses) at the local level instead of the county.
- ♦ The town would likely need to hire at least a part time zoning administrator, and would need to establish a Board of Appeals.
- ♦ The option requires County Board approval to establish and allow future changes. There still would be some areas of overlap between the county and town ordinances for environmental features such as shoreland and floodplain areas.

Option 5 Proceed with pursuing a combination of Option 1 with Options 2 and/or 3.

The town could work with the County to seek future amendments to the zoning code which implement and are consistent with the town's land use plan. During this period, the town could still proceed with the adoption of a local land division code to ensure that creation of new lots comply with the town's land use plan.

Advantages

- ♦ The County's undertaking of developing a comprehensive plan provides the town the opportunity to influence county-wide policies which could lead to zoning changes that further implement the town's comprehensive plan.
- ♦ The County would continue to be responsible for administering and enforcing zoning regulations. In addition, the town would not have to seek County approval to opt out of County zoning.

Disadvantages

- ♦ The timing of zoning changes is not controlled by the town.
- ♦ Interim controls are required by the town to regulate and administer the land use plan, which creates duty and responsibility for the town.
- ♦ As part of point above, the town would need to work out an intergovernmental agreement with Vilas County Zoning to refer development requests etc to the town board, which could also be looked at as an advantage depending on your viewpoint.

Land Division Ordinance

A land division ordinance is a planning tool to control how, when, and if rural woodlots and farmland will be divided and developed while protecting the needs and welfare of the community. Properly administered subdivision regulations can be more useful in achieving planning goals than zoning ordinances.

The impact of subdivision regulations is more permanent than zoning. Once land is divided into lots and streets are laid out, development patterns are set. Subdivision control ordinances often give a community its only opportunity to ensure that new development are properly designed.

The division of larger parcels to smaller parcels for the purpose of sale or transfer of ownership is certainly an issue in Phelps. To address that issue, the preferred land use classifications all have different densities.

Section 236 of the Wisconsin Statutes regulates the division of land into lots for the purpose of sale or building development. Towns can adopt their own subdivision ordinances without county approval. In order to exercise this power a town needs to have four things: a. village powers, b. land use plan-stating goals and objectives, c. planning committee/commission, d. an ordinance. If there is a conflict between a county and town land division ordinance, the proposed subdivision must comply with the most restrictive standard (Wisc. Stat. 236.13 (4)).

The land division ordinance is related to the zoning ordinance in that the zoning ordinance regulates the type (use) of development that takes place on a parcel and the land division ordinance regulates how the parcel is created and made ready for development. It must be stressed that a land division ordinance is not zoning in that it does not regulate permitted or conditional uses and/or setbacks.

Most importantly, the land division ordinance helps implement the land use plan. A basis of the approval of a land division is its conformance or consistency with a local land use plan via density of the preferred land use classes.

In order to administer a land division ordinance, the town must appoint a planning commission or committee to review and approve division requests.

Although it is ideal that land division codes and zoning codes (e.g., county zoning) be consistent with each other, there is no hierarchy of land use controls. Zoning does not take priority over the subdivision process or vice versa. Development approval must often proceed on two tracks: zoning approval and subdivision approval. In addition, the line between zoning and the regulation of subdivisions is not always clear. For example, both zoning and subdivision regulations address issues of lot size. (Source: Guide to Community Planning in Wisconsin, 1999, Department of Urban & Regional Planning University of Wisconsin-Madison/Extension, authored by Brian Ohm.)

A town land division code can provide the town the means to review and regulate new divisions of land to ensure consistency with the vision, goals, objectives, land protection criteria, and other recommendations of an adopted Phelps Land Use Plan. It can also allow provide for review of divisions of land exempt from county subdivision requirements, as Vilas County has no land division ordinance.

A town land division ordinance would require administration and enforcement by the town. Therefore, local control of divisions of land would require town funding. It also adds a layer of government involved in regulating proposals for land divisions.

The alternative to a town land division code is to approach the county to amend the county land division code (if applicable) to ensure that new divisions of land are consistent with the town plan. Other town's may be in support of similar modifications and could provide political support for the changes. However, changes would affect the entire county and may not be politically supported by the county. In addition, any amendments may not be totally satisfactory to the town, since the county must balance its' own abilities to administer the code and also the needs of other local governments.

The land division ordinance can be a valuable tool to administer land use plans without the benefit of coordinated zoning. The administration of the land division ordinance is a key factor to the success and use of land division regulations. A deterrent to effectiveness is the regulation affects new land divisions, not land previously divided and of property record. The land division ordinance could accompany the Vilas County Zoning Ordinance as the primary implementation tool to achieve its desired future condition and goals and objectives of the plan.

Design Review Standards

Design review standards are typically used by communities to ensure quality community character through establishing regulations, standards, and procedures for conducting site plan reviews as it applies to new business, industry and/or multi-family development. The objectives of design review standards often include: 1) to ensure efficient, safe, and attractive land development that is compatible with surrounding land uses and community character, 2) to implement the goals and policies of the land use plan; 3) to provide for screening landscaping, signage and lighting which enhances and complements land development activities and minimize adverse impacts on surrounding properties; 4) to develop proper safeguards to minimize environmental impact, and to advance and promote sound growth and continued development, and 5) to safeguard property values and promote high-quality development, among others.

Standards should be developed for landscaping/screening, signage, parking, traffic, lighting, site layout/building orientation, and building design, along with any other areas deemed appropriate or necessary as identified by the town. This ordinance would assist the town in maintaining its rural character through the appearance of new development, which often stimulates private investment into existing buildings. Section 12, Downtown Development and Design, captures the character and charm of northwoods design, features that would be directly regulated by design review.

Basic Code of Ordinances

The town of Phelps may also develop a basic code of ordinances within the town. This basic code of ordinances should include the following ordinances, in addition to the basic ordinances which have already been established by the town (Section 8.4, Development Regulation).

1. An ordinance to regulate landfills, quarries and gravel pits.
2. An ordinance to regulate large events and assemblages.
3. An ordinance to regulate potential hazards and public nuisances.
4. An ordinance to regulate junk motor vehicles and white goods.
5. An ordinance to regulate cellular towers.

These ordinances should be considered as part of a code of ordinance book to be administered by the town's planning committee.

Home Occupational Businesses

Home occupations are becoming more popular, and rural locations (especially the northwoods) are prime candidates for the impacts associated with shift in workforce locations. The town of Phelps does not have its own code, therefore home occupational businesses are regulated through Vilas County's zoning code. The issues arise to surrounding properties when conditions change relative to the use of a primarily residential land use to more of a commercial-type use.

The ordinance should establish what types of home occupational businesses are allowed, hours of operation, number of employees, number of customers, signage, outdoor storage, permitted and conditional uses, and other criteria which define when a home business has exceeded the limits of operating in an area that has infringed upon the protection of the health, safety, convenience and general welfare of town residents.

Action Plan

The action plan is a short-term analysis of actions primary to the success of the *Phelps Year 2020 Comprehensive Master Plan*. The Action Plan would be a primary tool in the crucial step following plan adoption. Since the town of Phelps did not reach that step, the action plan was never completed in terms of identifying time lines and order of priority. The format could be useful to the town in the future if the planing effort is re-erected.

The proper context to review the plan is by the ideas and actions generated by the process that culminate into value; the value being a measure of benefit toward the place in time that allows for growth and yet retains or even enhances the community character and sense of place.

Administrative

1. **Charge:** Adopt village powers to administer and enforce to be adopted town ordinances which promote plan recommendations and protects the public health, safety, and general welfare.

Who: Chief Elected Officials

When: Annual Town meeting or at special town meeting.

2. **Charge:** Establish a town planning committee to review land division, conditional use and rezoning requests.

Who: Chief Elected Officials

When:

3. **Charge:** Maintain existing Phelps Master Plan Steering Committee to review performance of the 1999 *Town of Phelps Year 2020 Comprehensive Master Plan*.

Who: Chief Elected Officials

When: Ongoing

4. **Charge:** Develop a "Government Operations Manual" which establishes policies relative to town employees, proposed development procedures, conduct of government officials, bidding, etc.

Who: Chief Elected Officials/Consultant

When:

5. **Charge:** Develop a Local POWTS (privately owned wastewater treatment system) inspection program.

Who: Chief Elected Officials/Planning Committee

When:

6. **Charge:** Pursue development of a quarterly town newsletter.

Who: Special Committee

When:

7. **Charge:** Coordinate the town planning efforts with the Vilas County Comprehensive Land Use Plan project.

Who: Chief Elected Officials/Master Plan Steering Committee.

When: Phase 5 (County Plan process), approximately Spring, 2001.

8. **Charge:** Evaluate the adoption of an official map for the town.

Who: Chief Elected Officials

When:

Ordinance Development

1. **Charge:** Develop a local land division ordinance which integrates the recommendations of the *Town of Phelps Year 2020 Comprehensive Master Plan* and the corresponding Preferred Land Use Classifications.

Who: Chief Elected Officials/Committee. Consider assistance from attorney or consultant.

When:

2. **Charge:** Develop a "Code of Ordinances" for the town (to be combined with existing ordinances) which address topics such as abandoned vehicle storage, animal confinement, nuisances, driveway access, obscenity, erosion control, etc.

Who: Chief Elected Officials/Consultant

When:

3. **Charge:** Develop a "Design Review Standard" ordinance which regulates future commercial, industrial, institutional, government and multi-family development. This could include signs, which is another ordinance that was discussed during development of the goals and objectives

Who: Special Committee delegated by the Chief Elected Officials. Consider assistance from UWEX or a Consultant.

When:

4. **Charge:** Develop a town parkland dedication ordinance to assist in funding improvements and activities related to recreation.

Who: Chief Elected Officials/Committee

When:

Ordinance Revisions

1. **Charge:** Request modifications to the Vilas County Zoning Ordinance to reflect the recommendations of the Phelps Year 2020 Preferred Land Use Plan and Preferred Zoning Maps.

Who: Chief Elected Officials/Phelps Land Use Planning Committee

When:

Policy Development

1. **Charge:** Develop specific town policies which encapsulate the utilization of the Phelps Comprehensive Master Plan, and the Phelps Land Division Ordinance.

Who: Special Committee delegated by the Chief Elected Officials

When: