

# Town of Lincoln, Kewaunee County 2017 Supplement to Comprehensive Plan



October 2017

**The 2017 Supplement to the Comprehensive Plan was drafted and edited by the  
Town of Lincoln Plan Commission:**

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**TOWN OF LINCOLN, KEWAUNEE COUNTY, WISCONSIN**

**AN ORDINANCE ADOPTING THE AMENDED  
TOWN OF LINCOLN COMPREHENSIVE PLAN**

STATE OF WISCONSIN

Town of Lincoln, Kewaunee County

**SECTION I – TITLE AND PURPOSE**

The title of this ordinance is the Town of Lincoln Comprehensive Plan Ordinance. The purpose of this ordinance is for the Town of Lincoln, Kewaunee County, Wisconsin, to lawfully adopt an amended comprehensive plan as required under s. 66.1001 (4) (c), Wis. stats.

**SECTION II – AUTHORITY**

The Town Board of the Town of Lincoln, Kewaunee County, Wisconsin, has authority under its village powers under s. 60.22, Wis. stats., to appoint a town plan commission under ss. 60.62 (4) and 62.23 (1), Wis. stats., and under s. 66.1001 (4), Wis. stats., to adopt this ordinance. The comprehensive plan of the Town of Lincoln must be in compliance with s. 66.1001 (4) (c), Wis. stats., in order for the Town Board to adopt this ordinance.

**SECTION III – ADOPTION OF ORDINANCE**

This ordinance, adopted by a majority of the Town Board on a roll call vote with a quorum present and voting and proper notice having been given, provides for the adoption by the Town of Lincoln a comprehensive plan under s. 66.1001 (4), Wis. stats.

**SECTION IV – PUBLIC PARTICIPATION**

The Town Board has adopted written procedures designed to foster public participation in every stage of the preparation of a comprehensive plan as required by s. 66.1001 (4) (a), Wis. stats.

**SECTION V – TOWN PLAN COMMISSION RECOMMENDATION**

The Plan Commission of the Town of Lincoln, by a majority vote of the entire commission, recorded in its official minutes, has adopted a resolution recommending to the Town Board the adoption of the 2017 Supplement to the 2006 Comprehensive Plan, which contains all of the elements specified in s. 66.1001 (2), Wis. stats.

**SECTION VI – PUBLIC HEARING**

The Town of Lincoln has held at least one public hearing on this ordinance, with notice in compliance with the requirements of s. 66.1001 (4) (d), Wis. stats.

**SECTION VII – ADOPTION OF TOWN COMPREHENSIVE PLAN**

The Town Board, by the enactment of this ordinance, formally adopts the document entitled 2017 Supplement to the 2006 Comprehensive Plan under s. 66.1001 (4) (c), Wis. stats.

**SECTION VIII – SEVERABILITY**

If any provision of this ordinance or its application to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of this ordinance that can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are severable.

SECTION IX – EFFECTIVE DATE

This ordinance is effective on publication or posting.

The Town Clerk shall properly post or publish this ordinance as required under s. 60.80, Wis. stats., and a copy of the ordinance and the comprehensive plan, shall be filed with at least all of the entities specified under s. 66.1001 (4) (b), Wis. stats.

Adopted this 11<sup>th</sup> day of September, 2017.

Cory Cochart 9/11/17  
Cory Cochart, Chairman Date

Nick Cochart 9/11/17  
Nick Cochart, Supervisor #1 Date

Jesse Jerabek 9/11/17  
Jesse Jerabek, Supervisor #2 Date

Attest:

Mary Ann Salmon 9-11-17  
Mary Ann Salmon, Town Clerk Date

## **Chapter 1:**

## Introduction

The Town of Lincoln adopted its current comprehensive plan in 2006 as part of a multi-jurisdiction planning effort that included the Village of Casco and Towns of Casco, Carlton, Montpelier, and West Kewaunee. The 2006 plan was funded in part via the Wisconsin Department of Administration Comprehensive Planning Grant Program. Under Wisconsin's Comprehensive Planning Law (Chapter 66.1001(2)(i), Wis. Stats.), a comprehensive plan must be updated at least once every ten years.

In late 2015, the Town contracted with Community Planning & Consulting to assist in preparing the '2017 Supplement to the 2006 Comprehensive Plan.' This Supplement represents the official 10-year update of the Town of Lincoln Comprehensive Plan 2025.



Kewaunee County, circa 1888; courtesy of Kewaunee County Historical Society

### Why an Addendum to the Comprehensive Plan?

The Town of Lincoln chose to add to, not revise, the current plan since much of the information contained within it remains relevant ten years after its adoption. This Supplement conforms to the format of the original plan chapters and includes updated demographic data, a reexamination of each planning element, an updated future land use map, and a revised implementation chapter.

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## Public Participation and Plan Adoption Procedures

These Public Participation and Plan Adoption Procedures describe the means by which the Town of Lincoln engaged the public in the development and adoption of the 2017 Supplement to the 2006 Comprehensive Plan. The 2017 Supplement was prepared in a fair and consensus based manner, balancing the needs of individuals with those of the community at large, to achieve the desired future for the Town of Lincoln.

### Comprehensive Planning Law Requirements

Chapter 66.1001(4)(a), Wis. Stats., requires that, “The governing body of a local government unit shall adopt written procedures that are designed to foster public participation, including open discussion, communication programs, information services, and public meetings for which advance notice has been provided, in every stage of the preparation of a comprehensive plan. The written procedures shall provide for wide distribution of proposed, alternative or amended elements of a comprehensive plan and shall provide an opportunity for written comments on the plan to be submitted by members of the public to the governing body and for the governing body to respond to such written comments.”

### Public Participation Procedures

The Town of Lincoln, Kewaunee County, Wisconsin, in order to engage the public in the process of developing the 2017 Supplement to the 2006 Comprehensive Plan, has adopted the following Public Participation Procedures. It is the intent of the Town Board to provide ample opportunities for the public to be meaningfully involved throughout the process of developing the document. In accordance with the requirements of Chapter 66.1001(4)(a), Wis. Stats., the Town of Lincoln did:

- Adopt this Public Participation Plan.
- Hold an Initial Meeting to begin the plan update process.
- Hold public meetings to seek input, revise, and prioritize the 2006 Implementation Plan.
- Hold regularly scheduled meetings of the Plan Commission to review the draft plan document and maps.
- Post the draft 2017 Supplement to the 2006 Comprehensive Plan to the project website for review.
- Hold a Public Hearing to solicit testimony from interested parties regarding the recommended 2017 Supplement to the 2006 Comprehensive Plan.
- Make available to the public information about the planning process and copies of plan documents.
- Record meeting attendance through sign-in sheets as part of the plan process record.
- Inform all adjoining municipalities, Kewaunee County, local school districts, Bay Lake Regional Planning Commission, Wisconsin Department of Natural Resources, Wisconsin Department of Transportation, and nonmetallic mining interests within the Town of the planning process.

- Accept written comments from residents, landowners, and other interested parties throughout the planning process.

All meetings related to the comprehensive plan were open to the public and duly posted pursuant to Ch. 985.02(2) Wis. Stats. The public notice announcing the required public hearing on the plan was published as a Class 1 notice, pursuant to Ch. 985.02(1) Wis. Stats., at least 30 days prior to the hearing. The Class 1 notice included the following:

- Date, time and place of the hearing.
- A brief summary of the 2017 Supplement to the 2006 Comprehensive Plan.
- The name of the Town representative who could provide additional information regarding the process of developing the 2017 update.
- The locations where a copy of the update could be viewed prior to the hearing.

Prior to posting the public hearing notice, copies of the recommended 2016 Supplement to the 2006 Comprehensive Plan were made available for viewing at the Town Hall, the town's website, <http://www.lincolnkewauneewi.com/> and on the project website located at, [www.communityplanningandconsulting.com](http://www.communityplanningandconsulting.com) Written testimony was accepted prior to and during the public hearing. Oral testimony was accepted at the hearing. All approved revisions to the recommended 2017 Supplement to the 2006 Comprehensive Plan resulting from testimony provided during the hearing were included in the official minutes of the hearing.

### Plan Adoption

The Town of Lincoln Board of Supervisors established a Town Plan Commission in accordance with the requirements of Ch. 66.1001(4)(a) Wis. Stats. The Plan Commission was the governmental body primarily responsible for the development of the update. Following the public hearing, and the incorporation of any revisions prompted by submitted testimony, the Plan Commission recommended to the Town Board the adoption of the 2017 Supplement to the 2006 Comprehensive Plan.

Based on the recommendation of the Plan Commission, the Town Board did, by majority vote, enact an ordinance adopting the 2017 Supplement to the 2006 Comprehensive Plan. A copy of the ordinance and adopted plan was delivered to the following parties:

- Kewaunee County and Door County.
- Nearest Public Library.
- Towns of Ahnapee, Casco, Luxemburg, Pierce, and Red River in Kewaunee County; Towns of Brussels, Forestville, and Union in Door County.
- Luxemburg-Casco School District.
- Bay Lake Regional Planning Commission.
- Wisconsin Departments of Administration, Natural Resources, and Transportation.

A copy of the 2017 Supplement to the 2006 Comprehensive Plan will be permanently maintained at the Lincoln Town Hall and nearest Public Library for public viewing purposes. A copy of the document may be obtained by contacting the Town Clerk.

## Plan Implementation & Update

The Town of Lincoln Plan Commission shall assist the Town Board in implementing the provisions of the *2017 Update of the Town of Lincoln Comprehensive Plan*. From time to time, but not less than once every ten years, the Plan Commission shall review the comprehensive plan for potential changes, additions, amendments, or corrections. The Plan Commission shall be responsible for recommending comprehensive plan amendments to the Town Board on a majority vote of its entire membership.

## Issues & Opportunities

The purpose of the Issues & Opportunities element is to describe the means by which the Town of Lincoln engaged the public in the development of the 2017 Supplement, including efforts beginning shortly after adoption of the 2006 Comprehensive Plan.

### Accomplishments & Milestones, 2007-2017

- April 2006. The Kewaunee River added to the DNR's List of Impaired Waters.
- February 2007. The Northeast Wisconsin Karst Task Force releases their Final Report outlining the findings, recommendations, and best management practices necessary to restore, maintain, and enhance a healthy groundwater resource in Northeast Wisconsin's karst areas.
- June 2008. El-Na Farm hosts Breakfast on the Farm in cooperation with the Kewaunee County Dairy Promotion Committee. Approximately 3,500 people ate breakfast and toured the farm on guided wagon rides. El-Na Farm has been in the family since 1858.
- August 2008. Dr. Angela Dantoin-Bauer and Sarah Wingert of University of Wisconsin-Green Bay (UWGB) begin the study 'Assessing the Levels of Endocrine Disrupting Chemicals in Groundwater Associated with Karst Areas in Northeast Wisconsin', including 10 wells in Kewaunee County.
- January 2010. Completion of the Dantoin-Bauer / Wingert study Assessing the Levels of Endocrine Disrupting Chemicals in Groundwater Associated with Karst Areas in Northeast Wisconsin. At the formal presentation of the results at UWGB, Dantoin-Bauer discloses that endocrine disruptors were found in the wells in Kewaunee County.
- June 2010. The town board engages with the 1<sup>st</sup> Responders by donating \$5000 for emergency paramedic services.
- October 2010. Kevin and Kelly Kotarek revitalize Euren and Lincoln Township with Tippy Canoe Bar and Grill.
- June 2011. Dairy Dreams hosts Breakfast on the Farm, in cooperation with the Kewaunee County Dairy Promotion Committee. Approximately 4,000 people ate breakfast and toured the farm on guided wagon rides.
- March 2012. Kinnard Farms Incorporated is granted a building permit for large farm expansion, which creates turmoil in the Town.

- March 2012. A moratorium on large farm construction is enacted while the Town wrestles with how it can modify the Department of Agriculture, Trade, and Consumer Protection (DATCP) boilerplate Livestock Siting Ordinance template to accommodate the concerns of Town residents.
- March 2013. Wisconsin Public Service begins an expansion of their natural gas pipeline along Highway 54 and through Rio Creek.
- March 2013. The Town Board passes a Resolution Prohibiting the Applications of Liquid Animal Manures and Agricultural Wastewater Using Center Pivot Irrigation Systems, Traveling Spray Guns, or Sprinkler Systems. This resolution was challenged by the Wisconsin Dairy Business Association and two Concentrated Animal Feeding Operation (CAFO) owners in Lincoln Township by way of a Notice of Claim, demanding that the ban be rescinded. The resolution was reviewed by our attorney and insurance company, both of whom felt that the township was on solid legal ground with the resolution. In December 2013, The Town Board of Supervisors chose not to rescind the ban.
- May 2013. The Kewaunee Nuclear Power Plant, owned by Dominion, ceases operation due to falling base load electricity prices. The retirement of the 39 year old power plant resulted in the loss of 550 well-paying jobs (200 of which were Kewaunee County residents) and huge property tax implications for the county school districts and municipalities.
- June 2013. Davina Bonness of the Kewaunee County Land and Water Conservation Department (KCLWCD), in cooperation with Kevin Masarik of the University of Wisconsin-Stevens Point (UWSP) Center for Watershed Science and Education, begins monthly sampling of 10 wells in Lincoln Township. The study was funded by the township and partially offset by a \$2500 grant from the Lakeshore Natural Resources Partnership.
- October 2013. The formation of the Rural Enterprise Network (REN), a grassroots citizens group which fosters the growth of sustainable agriculture and businesses in rural communities, and looks to re-establish sustainable family farms and the rural economy of Kewaunee County.
- 2006-14. Over a nine year period of time, 159 wells are tested by the Kewaunee County Land and Water Well Testing Program for nitrates and / or coliform contamination.
- January 2014. The Town Board passes the Livestock Siting Ordinance.
- March 2014. A town board sanctioned community effort begins seeking donations of bottled water for those families experiencing “brown water events.”
- April 2014 Both the Ahnapee River and East Twin River are added to the DNR’s list of Impaired Waters for “degraded biological community” due to total phosphorus.
- May 2014. Dr. Mark Borchardt, USDA, and Dr. Maureen Muldoon, University of Wisconsin-Oshkosh (UWO), sample 10 wells in Lincoln and Red River Townships for human and bovine viral DNA. Seven of the 10 wells tested positive for fecal contamination.
- June 2014. The Town Board passes an Interim Control Ordinance for the Regulation of Animals Suspected of Biting People and Dangerous Dogs.
- July 2014. Davina Bonness and Kevin Masarik present their well testing findings in Investigating Inter-annual Variability of Well Quality in Lincoln Township, with nearly 100 people attending.
- July 2014—Wisconsin Public Service completed 7 miles of natural gas line extension in the Rio Creek area along Highway 54 and County Road K and P. Eighty new customers (not just in Lincoln Township) are serviced by the line extension.

- August 2014. The Town Board approves funding for bi-annual well testing of 25 wells to be conducted by KCLWCD. The hope is that the project will continue for a period of ten years so that we can develop a trend for long-term groundwater quality in the township.
- September 2014. The Town Board passes an amendment to the Livestock Siting Ordinance requiring reporting of animal units by large and mid-sized farms.
- September 2014. The Kewaunee County Board of Supervisors unanimously adopts the Public Health and Groundwater Protection Ordinance, paving the way for an all-county referendum in April, 2015.
- December 2014. The Town Board passes a zoning ordinance change requiring reciprocal setbacks between animal waste storage facilities and residences, businesses, commercial enterprises, and industries.
- December 2014. The Plan Commission begins the process of updating the Comprehensive Plan by reviewing the Implementation Section and the recommendations submitted by Brandon Robinson of Bay Lakes Regional Plan Commission (BLRPC) in October 2012.
- January 2015. The Kewaunee County Board of Supervisors Chairman declares groundwater as the county's number one problem.
- January 2015. The Town chair requests that the Wisconsin Department of Natural Resources (WDNR) designate the Town as an area of special eligibility for well compensation. WDNR responded that "the information submitted...does not meet the statutory criteria necessary to declare the entire Town of Lincoln as an area of special eligibility."
- January 2015. The Plan Commission holds two public "give and take" meetings to review and update the Implementation Section of the Town's Comprehensive Plan (January 7 and 12, 2015).
- February 2015. A Kewaunee County collaborative of stakeholders begins work on the Implements of Husbandry recommendations.
- In March 2015. Congressman Reid Ribble convened a "Phosphorus Summit based on the confirmation of the existence of a dead zone in the bay of Green Bay.
- March 2015. The Town Board passes an Ordinance Prohibiting the Applications of Liquid Animal Manures and Agricultural Wastewater Using Center Pivot Irrigation Systems, Traveling Spray Guns, or Sprinkler Systems.
- March 2015. Michael Parsen and Madeline Gotkowitz of the Wisconsin Geological and Natural History Survey (WGNHS) make a presentation to the Plan Commission and Town Board of Supervisors on what a ground water map is and how the Town can use such a map for land use planning.
- March 2015. Several households are selected to participate in a long term well study conducted by Dr. John Luczaj and Amber Konrad of UWGB to use isotopes to track the recharge rate of groundwater from precipitation to entry into their wells.
- April 2015. The voters in Lincoln Township approve the Kewaunee County referendum on the Public Health and Groundwater Protection Ordinance by a margin of 79% to 21%. Countywide results are 83% to 17%.
- May 2015. Lincoln Township was invited to attend the Phosphorus Roundtable hosted by Congressman Reid Ribble. They were joined by County executives and conservationists from Counties that border either the lower Fox River or the Bay of Green Bay. The Congressman was soliciting ideas for phosphorus reduction. This

followed the Phosphorus Summit that Congressman Ribble held in April where a variety of interested parties, including WDNR Secretary Stepp, shared their efforts in reducing the phosphorus load emptying into the watershed.

- June 2015. Steve Hanson, Kewaunee County Land Information Office, Commits \$10,000 in 2015 to support the Town's groundwater mapping project and an additional \$10,000 for 2016.
- June 2015. The Socially Responsible Agricultural Project releases The Rap Sheets: Industrial Dairies of Kewaunee County Wisconsin, documenting the regulatory and enforcement failure of WDNR.
- July 2015. The Town's website goes live: [www.lincolnkewauneewi.com](http://www.lincolnkewauneewi.com)
- August 2015. The Town Board and several citizens initiate the "Adopt-A-Road" road cleanup initiative. The Town took the initiative to mail out the Kewaunee County Implements of Husbandry (IOH) Recommendations along with the Town of Lincoln IOH map.
- August 2015. Town Board finalizes the IOH map, the 1st in Kewaunee County.
- August 2015. The Town Board contracts with the WGNHS to develop a set of bedrock, groundwater and recharge maps for the township. Deliverables include Depth to Bedrock Evaluation, Water Table Mapping, Groundwater Recharge Mapping; Groundwater Contaminant Susceptibility; and Karst Landform Mapping. The entire package will be formatted as a .pdf document and posted on our website on completion in early 2017.
- August 2015. Several Town residents began working with the WDNR on three work groups: Short Term Solutions, Compliance, and Sensitive Areas. The WDNR, in their opening comments, recognized that the practices and policies currently in play "are not working". The purpose of the workgroups was to recommend changes that could be made to remedy those failures and better protect our ground water resources.
- September 2015. The Kewaunee County Land and Water Conservation Department (LWCD) and the Natural Resources Conservation Service (NRCS) host a public forum to explain federal funding for the Kewaunee and Ahnapee Rivers Watersheds Project based on attendee ranking of conservation priorities. Over 106 people attend the forum, of which 90 are Kewaunee County residents, including 10 Lincoln Township residents.
- September 2015. The WDNR contributes \$80,000 to help fund a multi-year groundwater quality assessment study of Kewaunee County to help establish the extent of groundwater and well contamination in the county as well as the source of the contamination. Research partners include USDA-Agricultural Research Service, UWO Department of Geology, US Geological Survey-Wisconsin Water Science Center, UWSP Center for Watershed Science and UW-Extension, and the Kewaunee County Land & Water Conservation Department.
- November 2015. Lincoln Township adds transfer stations to their IoH map, the first in Kewaunee County.
- November 2015. Dr. Mark Borchardt and Dr. Maureen Muldoon, in conjunction with KCLWCD, initiate a county-wide randomized and stratified well sampling survey, stratified by depth to bedrock, for nitrate and indicator bacteria. The study, partially funded by the WDNR, includes twice-sampled tests of 450 wells, biweekly samples of 20 wells, and continual monitoring of two additional domestic wells in addition to a test well. The results will be of value to Lincoln Township for the Comprehensive Plan.

- December 2015. Kewaunee County Board of Supervisors Chairman Ron Heuer announces that Kewaunee County was awarded a \$50,000 grant from the Public Service Commission of Wisconsin to study the feasibility of establishing manure treatment centers around Kewaunee County. Lincoln Township is identified as the possible location of a pilot project.
- January, 2016—Algoma High School dedicates a water kiosk, where residents of Kewaunee County whose wells are contaminated may obtain clean drinking water.
- March 2016—The Friends of Crescent Beach host a discussion session with Representatives Joel Kitchens and Scott Krug and area residents on a proposal to request funding in the state budget for a DNR study of the Ahnapee Watershed.
- March 2016—Wisconsin Public Service unveils two natural gas line extension projects in Lincoln Township totaling 31 miles. WPS hopes to reach upwards of 300 new customers with these two extensions, due to be completed in October, 2016.
- April 2016. Peninsula Pride Farms forms organizing farmers in Kewaunee County and Southern Door County for the purpose of developing and sharing better farming practices.
- June 2016. The WDNR releases some of the recommendations from the Work Groups on Short Term Solutions, Compliance, and Best Management Practice in Sensitive Areas at a public meeting with over 150 county residents attending.
- June 2016. The State of Wisconsin Legislative Audit Bureau releases a report highly critical of the WDNR, *Wastewater Permitting and Enforcement*. Highlighted in the report is a section titled *Addressing Groundwater Contamination in Kewaunee County*.
- July 2016. The second phase of the Borchardt/Muldoon well testing study is conducted in Kewaunee County.
- August 2016. Town of Lincoln Plan Commission members who participated in the WDNR Workgroups are invited to take part in the Kewaunee County Water Quality Roundtable Discussion hosted by U.S. Senator Tammy Baldwin.
- August 2016. The WDNR funds a Kewaunee County research project conducted by UW-Oshkosh scientists that seeks to predict the timing and determine the sources as well as remedies for drinking water well contamination. The research will cover both pathogens and nitrate and will involve development of an automated well sampling method.
- October 2016. Town of Lincoln Board of Supervisors votes to fund a whole house water treatment system pilot study.
- April, 2017. In cooperation with ten other townships and the Door County Highway Department, the Town Board of Supervisors sends a letter to CAFO owners, operators, and haulers outlining expectations for agricultural waste hauling on town roads.
- June, 2017. Presentation on the Kewaunee County Well Testing Research Findings: Sources of Fecal Contamination in the Dolomite Aquifer in Northeastern Wisconsin by Mark Borchardt (USDA-Agricultural Research Service ) and Maureen Muldoon (UW-Oshkosh Department of Geology).
- June, 2017. Wallace Dairy Farm hosts the 35<sup>th</sup> Annual Breakfast on the Farm in cooperation with the Kewaunee County Dairy Promotion Committee. Over 5,000 people ate breakfast and toured the farm.
- June, 2017. Michael Parsen, Wisconsin Geological and Natural History Survey, presents the town's groundwater study, *Hydrogeological Characterization of the Town of Lincoln, Kewaunee County, Wisconsin*, to town and county residents.

### Formal Plan Update Process

In December 2014, the Town of Lincoln Plan Commission began the process of updating the Town's 2006 Comprehensive Plan by reviewing the implementation element and a set of recommendations submitted to the Plan Commission by Brandon Robinson of Bay Lakes Regional Plan Commission in October 2012. On January 7<sup>th</sup> and January 12<sup>th</sup> of 2015 the Plan Commission held public "give and take" meetings to further review and update this section of the plan. The Plan Commission then worked on revising the Implementation Plan priorities during seven meetings over five months, welcoming participation from residents who attended these meetings. Those priorities are incorporated within the implementation element of this Supplement.

### Intergovernmental Announcements

In January 2016, intergovernmental announcements were mailed to neighboring municipalities, Kewaunee County, Door County, the Luxemburg-Casco School District, Bay Lake Regional Planning Commission, and the Wisconsin Departments of Natural Resources and Transportation. The purpose of the letters was to inform intergovernmental partners of the update process and provide opportunities for review and comment on the draft document.

### Initial Meeting

An Initial Meeting between the Town of Lincoln Board of Supervisors, Plan Commission, Community Planning & Consulting, and the general public was held on January 13, 2016. The purpose of the meeting was to review the results of earlier planning and visioning efforts, present an overview of the process of developing the 2017 Supplement, and discuss updated demographic data collected from the 2010 US Census and 2014 American Community Survey.

### First Draft Presentation

The first draft of 2017 Supplement presented to the community on August 16, 2017 at the Lincoln Town Hall. The document was also posted to the Community Planning & Consulting website for review. Following the presentation, the Plan Commission met to review the document and prepare recommended revisions to be incorporated prior to the Public Hearing.

### Public Hearing & Adoption

A Public Hearing on the 2017 Supplement was held on August 16, 2017 at the Town Hall. Following any revisions necessitated by hearing testimony, the Plan Commission recommended adoption of the updated plan to the Town Board. The Town of Lincoln Board of Supervisors adopted the 2017 Supplement to the 2006 Comprehensive Plan on September 11, 2017.

## Community Profile

### Introduction

The demographic information presented throughout this Supplement is drawn from the 2000 and 2010 US Censuses and the American Community Survey (ACS). The 2000 Census was the last to utilize the long survey format. Beginning in 2010, the Census Bureau distributed an abbreviated survey instrument that resulted in the collection of much more limited data. The 2010 Census has since been augmented with additional information gathered through the ACS. The ACS is an ongoing statistical survey, undertaken by the Census Bureau, to gather information previously contained in the long form of the decennial census. The data listed under the '2014' table headings that appear throughout this document result from the most recent ACS for Wisconsin municipalities.

### Population Profile

The Town of Lincoln had an estimated 2015 population of 925 persons. As with many rural townships in the US, the population of the community has been steadily declining since the 1970s. The primary causes of population loss include the emigration of young people, lack of local employment opportunities, limited buildable residential parcels, contraction within the agricultural sector, and seniors aging out of their homes. A shrinking rural residential population can place increasing burdens on the local tax base (road repair, infrastructure replacement, etc.), reduce enrollment within local school districts, and cause home prices to fall while property taxes rise.

**Table 1: Population of Kewaunee County Municipalities, 1970-2010**

Municipality	1970	1980	1990	2000	2010	Change, 1970-2010	Change, 2000-2010
T. Ahnapee	878	948	941	977	940	7.1%	-3.8%
T. Carlton	1,105	1,140	1,041	1,000	1,014	-8.2%	1.4%
T. Casco	979	1,001	1,010	1,153	1,165	19.0%	1.0%
T. Franklin	966	1,062	990	997	993	2.8%	-0.4%
<b>T. Lincoln</b>	<b>984</b>	<b>967</b>	<b>996</b>	<b>957</b>	<b>948</b>	<b>-3.7%</b>	<b>-0.9%</b>
T. Luxemburg	1,295	1,468	1,387	1,402	1,469	13.4%	4.8%
T. Montpelier	1,273	1,457	1,369	1,371	1,306	2.6%	-4.7%
T. Pierce	720	790	724	897	833	15.7%	-7.1%
T. Red River	1,308	1,431	1,407	1,476	1,393	6.5%	-5.6%
T. West Kewaunee	1,195	1,294	1,215	1,287	1,296	8.5%	0.7%
V. Casco	481	484	544	572	583	21.2%	1.9%
V. Luxemburg	853	1,040	1,151	1,935	2,515	194.8%	30.0%
C. Algoma	4,023	3,656	3,353	3,351	3,167	-21.3%	-5.5%
C. Kewaunee	1,195	2,801	2,750	2,806	2,952	147.0%	5.2%
Kewaunee County	18,961	19,539	18,878	20,187	20,574	8.5%	1.9%

Source: Wisconsin Department of Administration-Demographic Services Center

**Table 2: Projected Population of Kewaunee County Municipalities, 2020-2035**

Municipality	2015	2020	2025	2030	2035	Change, 2015-2035
T. Ahnapee	925	935	945	945	930	0.5%
T. Carlton	1,020	1,045	1,075	1,095	1,095	7.4%
T. Casco	1,170	1,215	1,260	1,300	1,310	12.0%
T. Franklin	985	1,005	1,020	1,035	1,025	4.1%
<b>T. Lincoln</b>	<b>925</b>	<b>925</b>	<b>930</b>	<b>930</b>	<b>905</b>	<b>-2.2%</b>
T. Luxemburg	1,470	1,515	1,565	1,610	1,615	9.9%
T. Montpelier	1,295	1,310	1,320	1,330	1,305	0.8%
T. Pierce	815	825	835	840	825	1.2%
T. Red River	1,380	1,395	1,410	1,415	1,395	1.1%
T. West Kewaunee	1,320	1,375	1,425	1,475	1,490	12.9%
V. Casco	585	600	620	635	635	8.6%
V. Luxemburg	2,595	2,760	2,930	3,090	3,185	22.7%
C. Algoma	3,115	3,140	3,150	3,150	3,080	-1.1%
C. Kewaunee	2,905	2,970	3,040	3,090	3,075	5.9%
Kewaunee County	20,505	21,015	21,515	21,940	21,870	6.7%

Source: Wisconsin Department of Administration-Demographic Services Center

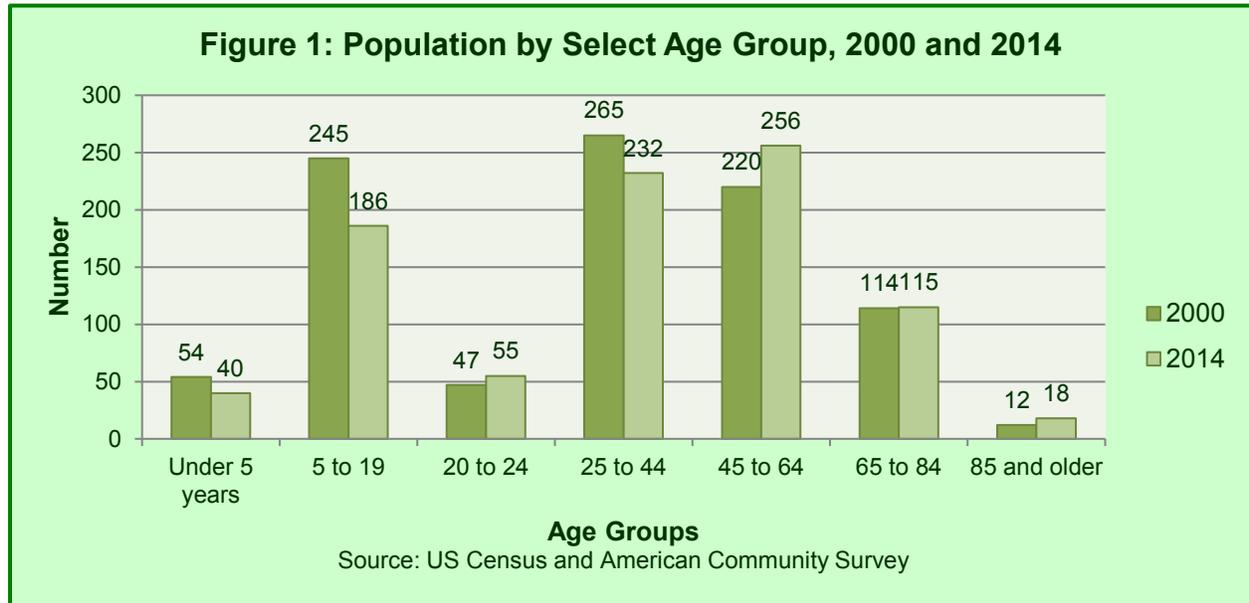
### Select Population Characteristics<sup>1</sup>

- Gender: 54.4% male, 45.6% female
- Race: 98% white, 0.7% African American, 0.3% Asian American
- Hispanic/Latino origin: 44 (4.5% of total)
- Median Age: 38.5 (36.1 in 2000)
- Population Density: 25/square mile (27/square mile in 2000)

Figure 1 compares the population of select age groups as a percentage of the total population for the years 2000 and 2014. In 2000, residents younger than age 45 accounted for 64% of the total population. By 2014 that number had fallen to 57%. Meanwhile, the population of residents 45 years of age and older increased by 12%, from 346 to 389. Rural communities are aging faster than the national average, though less so in Lincoln when compared to its municipal neighbors. As the baby boom generation (those born between 1946 and 1964) reaches retirement, communities

<sup>1</sup> Source: American Community Survey, 2014

around the country will have to shift priorities and resources to address the needs of a growing population of seniors.



Changes within the age groups represented in above play an important role in community planning. Declines or expansions within the various categories provide local government with opportunities to target limited capital resources to areas of greatest need (i.e., housing, parks & recreation, transportation systems, etc.). Each group has a particular set of characteristics and needs that must be addressed by local, county, and state government. Due to the aging population, a hospital should be a priority for Kewaunee County.

**Household Profile**

Nationwide, trends have shifted toward an increase in the number of households with a corresponding decrease in the average number of persons per household. The main reasons for decreases in household size include lower birth rates, people waiting longer to get married, and increases in average life span (resulting in more seniors living alone).

Households & Household Size

The number of persons living in Lincoln’s households is decreasing. This is significant since a decrease in household size means that more housing units will be needed to support the population *even if the overall population remains the same*. While the total population of the Town is projected to decline by two percent during the next two decades, the anticipated number of households is forecasted to increase by five percent by 2030 before contracting slightly in 2035.

**Table 3: Actual and Projected Households & Average Household Size for the Town of Lincoln and Kewaunee County, 2015-2035**

Year	Town of Lincoln		Kewaunee County	
	Total Households	Avg. Household Size	Total Households	Avg. Household Size
2015	348	2.64	8,367	2.45
2020	352	2.61	8,673	2.42
2025	359	2.57	8,995	2.39
2030	365	2.53	9,302	2.36
2035	359	2.50	9,360	2.34

Source: Wisconsin Department of Administration-Demographic Services Center

The 320 occupied housing units in Lincoln in 2014 included:

- 246 family households.
- 17 with male householder, no wife present.
- 18 with female householder, no husband present.
- Average family size of 3.03 persons.
- 74 non-traditional family households.
- 58 single individual households

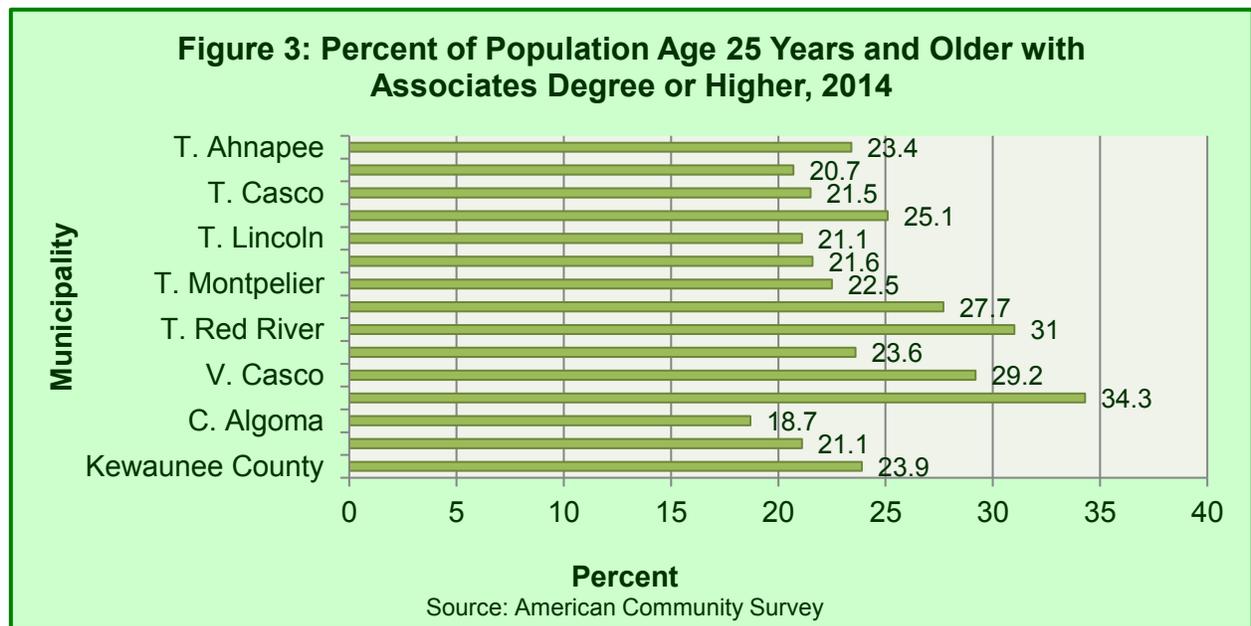
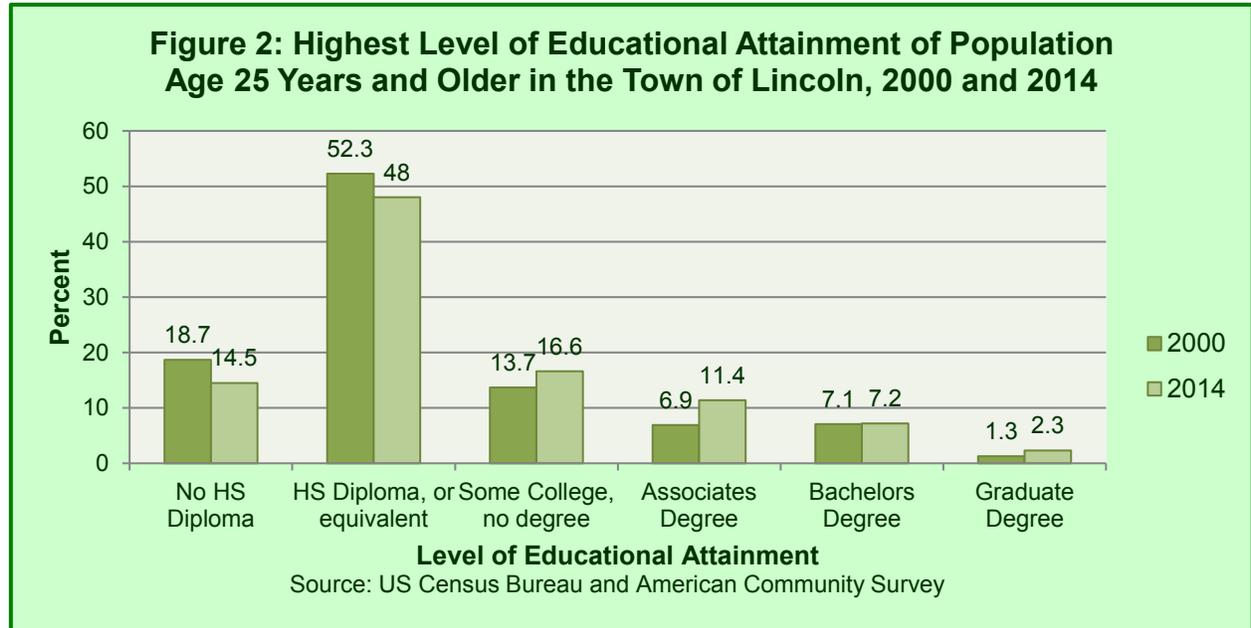
For additional information related to housing, please refer to “Housing” beginning on page 1 of Chapter 2.

**Education Profile**

Educational Attainment

Educational attainment is considered a key quality of life indicator and critical factor in determining economic development opportunities. Generally, a high level of attainment reflects a skilled population with higher earnings potential. In 2011, the Bureau of Labor Statistics reported that a person with an Associate’s degree is likely to earn nearly \$7,000 more per year than someone with just a high school diploma, while those with a Bachelors or Masters degree will earn \$21,000 and \$34,000 more, respectively. The level of educational attainment among Lincoln’s residents is rising. The number of people 25 years of age and older that have attended college or earned a college degree rose from 29% in 2000 to 37.5% as of the 2014 ACS, while those who’s level of attainment peaked at a high school diploma decreased from 52.3% to 48%. Figure 2 presents the percentage of

the population of the Kewaunee municipalities aged 25 years and older with Associates degree or higher in 2014.



The economic profile describes the local economy via a set of broadly focused data related to income, poverty rate, and employment. Economic conditions have a direct impact on the supply, demand, and costs of housing, infrastructure, and other services within a community. For additional information related to Lincoln's economy please see 'Economic Development' in Chapter 3.

### Income

Median household income is the most common category of income used for planning purposes. Households include individuals or groups of people (family and nonfamily) living together in a single dwelling unit. The median figure represents the middle point (as opposed to an average) of household income. The 2014 median household income in the Town of Lincoln was \$52,727, a twenty-five percent increase from 2000.

### Poverty

In 2000, 5.9% of families and 8.9% of individuals in the Town reported incomes falling below the poverty threshold as defined by the US Department of Health & Human Services. By 2014, poverty status for families and individuals had increased to 7.7% and 11.9%, respectively. Countywide, the numbers are 6.5% and 9.4%. Nearly 7.5 percent of Lincoln's residents aged 65 years and older reported incomes below poverty level in 2014. In the Algoma School district, over 50% of the elementary school students are receiving free or reduced lunches whereas the at the high school the number is around 35%. (The discrepancy is due to under reporting.) In the Luxemburg-Casco School District, 22% of the students received free or reduced school lunches. (These numbers are for the county, there is no breakdown for individual townships.)

### Employment

Agriculture, forestry, fishing, and hunting, mining and Manufacturing remain the top sectors employing residents of Lincoln, although both have declined since 2000 (-12.2% and -47%, respectively). Most residents not engaged in farming find employment outside of the Town, primarily elsewhere in Kewaunee County, the Green Bay metropolitan area, or in the Fox Cities. As of the 2014 ACS, there were 500 employed residents out of a civilian labor force totaling 539, for an

**Table 4: Comparison of Median Household Income of Kewaunee County Municipalities, 2000 and 2014**

Municipality	2000	2014	Change, 2000-2013
T. Ahnapee	\$47,500	\$62,955	32.5%
T. Carlton	\$50,227	\$55,417	10.3%
T. Casco	\$46,250	\$66,875	44.6%
T. Franklin	\$52,019	\$66,176	27.2%
<b>T. Lincoln</b>	<b>\$42,188</b>	<b>\$52,727</b>	<b>25.0%</b>
T. Luxemburg	\$54,875	\$73,611	34.1%
T. Montpelier	\$51,000	\$60,083	17.8%
T. Pierce	\$43,000	\$46,136	7.3%
T. Red River	\$47,833	\$64,219	34.3%
T. West Kewaunee	\$47,059	\$59,145	25.7%
V. Casco	\$44,583	\$44,545	-0.8%
V. Luxemburg	\$45,000	\$56,000	24.4%
C. Algoma	\$35,029	\$40,313	15.1%
C. Kewaunee	\$36,420	\$49,710	36.5%
Kewaunee County	\$43,824	\$53,588	22.3%
Wisconsin	\$43,791	\$52,413	19.7%
United States	\$41,994	\$53,046	25.0%

Source: US Census and American Community Survey

unemployment rate of 7.2% (the Town had 503 employed residents and a 1.8% unemployment rate in 2000). Table 6 compares employment by industry sector for Lincoln residents age 16 years and older for the years 2000 and 2014.

**Table 5: Employment by Industry Sector in Town of Lincoln, 2000 and 2014.**

Sector	2000		2014		Change, 2000-2014	
	Number	Percent	Number	Percent	Number	Percent
Agriculture, forestry, fishing and hunting, mining	118	23.5%	93	18.6%	-25	-12.2%
Manufacturing	164	32.6%	87	17.4%	-77	-47.0%
Education services, health care, and social assistance	47	9.3%	78	15.6%	31	66.0%
Construction	51	10.1%	48	9.6%	-3	-5.9%
Arts, entertainment, and recreation	9	1.8%	41	8.2%	32	356.0%
Retail trade	35	7.0%	36	7.2%	1	2.9%
Transportation, warehousing, and utilities	19	3.8%	34	6.8%	15	78.9%
Other service, except public administration	12	2.4%	28	5.6%	16	133.3%
Professional, scientific, and management	10	2.0%	18	3.6%	8	80.0%
Public administration	6	1.2%	17	3.4%	11	183.3%
Finance, insurance, and real estate	12	2.4%	12	2.4%	0	0%
Wholesale trade	12	2.4%	8	1.6%	-4	-33.3%
Information	8	1.6%	0	--	-8	--

Source: US Census and American Community Survey

### Commuting Patterns<sup>2</sup>

One of the economic strengths of Kewaunee County is its interconnectedness to the broader regional economy. Interstate 43 and State Highways 29, 42, and 54 provide convenient access to markets in Green Bay and Milwaukee, among others. The most significant relationship exists between Kewaunee and Brown County. More residents of Kewaunee County travel west each day than their Brown County counterparts (3,595 versus 1,342). A sizable number of residents also commute to Door and Manitowoc Counties. The average commute for a Kewaunee County worker is twenty-three minutes.

<sup>2</sup> Source: Kewaunee County Economic and Workforce Profile, Wisconsin Department of Workforce Development, 2013.

### Regional Trends

The 2015 projected employment forecast for the Green Bay region (including Kewaunee County) is surpassed only by the Madison and Oshkosh-Neenah MSAs in the state. However, a comparison of 2015 forecast with that of 2006 dramatically illustrates the lingering effects of the national economic downturn. Continuing growth within the state and national economy indicates that future forecasts will trend towards higher employment, though not necessarily within the same industry sectors or reaching the numbers experienced prior to the Great Recession; at least in the near term.

### State Trends<sup>3</sup>

The Wisconsin economy grew at a slow pace in 2013 and was expected to gain steam in 2014. The Wisconsin economy, as measured by personal income, grew 3.9% in 2012, just below the 4.2% growth nationwide. Wisconsin personal income should post growth of 2.9% in 2013 and will grow 4.0% in 2014. Employment in Wisconsin added around 30,000 jobs per year in 2012 and 2013. The forecast called for increases of more than 40,000 jobs per year in 2014 and 2015. Wisconsin employment was projected to grow by 1.5% in 2014 and 1.7% in 2015 and 2016.

The forecast for Wisconsin and U.S. employment calls for a continuation in economic recovery. Several factors are in play to give some steam to the economic recovery: improved consumer sentiment and consumer spending, a recovering housing sector, and healthy exports growth. The state economy followed the national economy into the recession and it shows a similar pattern in the recovery, although lagging behind most of the nation. Total Wisconsin employment was projected to return to its 2008 peak level of 2.9 million jobs by mid-2015.

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<sup>3</sup> Excerpted from the Wisconsin Department of Revenue, Wisconsin Economic Outlook: Winter 2014.

## **Chapter 2:**

## Housing

### Introduction

Beyond providing shelter, housing is a core feature of the built environment. It is a determiner of transportation patterns and an investment for building financial security. The type of housing desired by residents varies depending on age, income, marital status, and family size, among other variables. A sufficient supply of high quality, well-designed housing is vital to a healthy and prosperous community.

### Housing Vision

*Through fairly administered land use plans, implementation policies, and development procedures, the Town of Lincoln will try to ensure that current and future residents are able to find the types of housing necessary to meet their needs.*

### Current Supply (as of 2014 ACS)

- 362 total units (320 occupied, 42 vacant).
- 317 single-family; 10 2-units, 27 mobile homes.
- Median Value - \$153,100
- Median monthly mortgage - \$1,317
- Median monthly rent - \$538
- Affordability- mortgage holders, 35.4% paying more than 30% of monthly income; Renters, 48.8% paying more than 30% of monthly income

### New Home Starts, 2006-2016

- |            |            |
|------------|------------|
| • 2006 - 4 | • 2012 - 1 |
| • 2007 - 1 | • 2013 - 5 |
| • 2008 - 2 | • 2014 - 0 |
| • 2009 - 2 | • 2015 - 1 |
| • 2010 - 1 | • 2016 - 2 |
| • 2011 - 1 |            |

**Table 7: Median Cost of Owner-Occupied Homes in Kewaunee County Municipalities, 2000 and 2014**

Municipality	2000	2014	Change, 2000 to 2014	
			Number	Percent
T. Ahnapee	\$94,800	\$163,600	\$68,800	72.6%
T. Carlton	\$94,300	\$145,300	\$51,000	54.1%
T. Casco	\$106,000	\$171,200	\$65,200	61.5%
T. Franklin	\$106,000	\$157,500	\$51,500	48.6%
<b>T. Lincoln</b>	<b>\$88,300</b>	<b>\$153,100</b>	<b>\$64,800</b>	<b>73.4%</b>
T. Luxemburg	\$118,100	\$174,700	\$56,600	47.9%
T. Montpelier	\$111,000	\$166,900	\$55,900	50.4%
T. Pierce	\$99,500	\$166,800	\$67,300	67.6%
T. Red River	\$122,200	\$186,500	\$64,300	52.6%
T. West Kewaunee	\$98,100	\$172,500	\$74,400	75.8%
V. Casco	\$90,400	\$128,300	\$37,900	41.9%
V. Luxemburg	\$109,800	\$157,700	\$47,900	43.6%
C. Algoma	\$73,600	\$97,100	\$23,500	31.9%
C. Kewaunee	\$80,100	\$98,800	\$18,700	23.3%
Kewaunee County	\$92,100	\$145,600	\$53,500	58.1%

Source: US Census and American Community Survey

**Housing Plan**

Based upon population projections, regional trends, and public input, the areas of focus for housing in the Town of Lincoln include housing for seniors, housing for young families, and a limited supply of rental units. Although not prohibited, the Town does not anticipate a need for subdivision development during the next twenty years.

Secondary Suites

A secondary suite is an additional dwelling unit located on a parcel that would typically accommodate only one unit. Considered an accessory to the primary residence, it can be self-contained but must be attached to the principal structure and can have its own entrance, kitchen, bathroom, and living area. Secondary suites may come in a variety of forms, including:

- A suite above an attached garage
- A suite above the main floor of a single-family dwelling.
- A basement suite.



- A suite attached to a single-family dwelling at grade.

Generally, secondary suites are allowed as a conditional use in order to foster affordable housing or aid families with elderly parents or disabled family members who are unable to live completely alone.

### Senior Housing

Senior housing, when designed in harmony with the landscape and visually consistent with existing housing stock, may provide opportunities for residents to remain in the community as they age out of their current home. Units like those pictured at right may be owner-occupied (via condominium ownership) or available for rent, but tend to be age-specific (i.e., the primary resident must be 55 years of age or older).



### Duplexes / Quadplexes

Small rental units, such as duplexes and quadplexes, offer affordable housing options in rural communities without the population densities to support traditional multi-family housing. Available at market prices, they offer housing alternatives desirable to singles, young families, and seniors. Zoning and subdivision ordinances can ensure that the structures are aesthetically suitable in a rural environment.



## **T**ransportation

The transportation system is intended to support the varied needs of residents, farmers, local businesses, visitors, and through-traffic. It provides the means by which people and materials flow to and through the community. Multi-modal systems complement the existing road network and provide increased mobility for seniors, people with disabilities, children, and bicyclists, among others. Finding solutions to current challenges, and planning to avoid future ones, is a primary goal of the transportation element.

### **Transportation Vision**

*The Town of Lincoln will maintain a safe and efficient transportation system primarily oriented around personal vehicles and agricultural machinery but including pedestrian and bicycle use.*

### Transportation Issues & Initiatives



#### Implements of Husbandry

Act 377, Wisconsin's Implements of Husbandry Law, made changes in the way agricultural vehicles and equipment operate on state, county, and local roads. Act 377 established more flexible limitations for weight limits imposed on farm machinery which forged a compromise between the agricultural community and local officials. The legislation was intended to balance the need for farm equipment to operate legally and safely on roads with the need to protect local

infrastructure. As of April 2014, an implement of husbandry (IOH) is defined as:

- A self-propelled or towed vehicle manufactured, designed, or reconstructed to be used and that is used exclusively in the conduct of Agriculture.
- A combination of vehicles in which each vehicle in the combination is an IOH.
- A combination of vehicles in which an IOH farm wagon, grain cart, farm trailer, or manure trailer is towed by a farm truck, farm truck tractor, or motor truck.

#### Kewaunee County IOH Recommendations - Transfer Stations/Road Safety

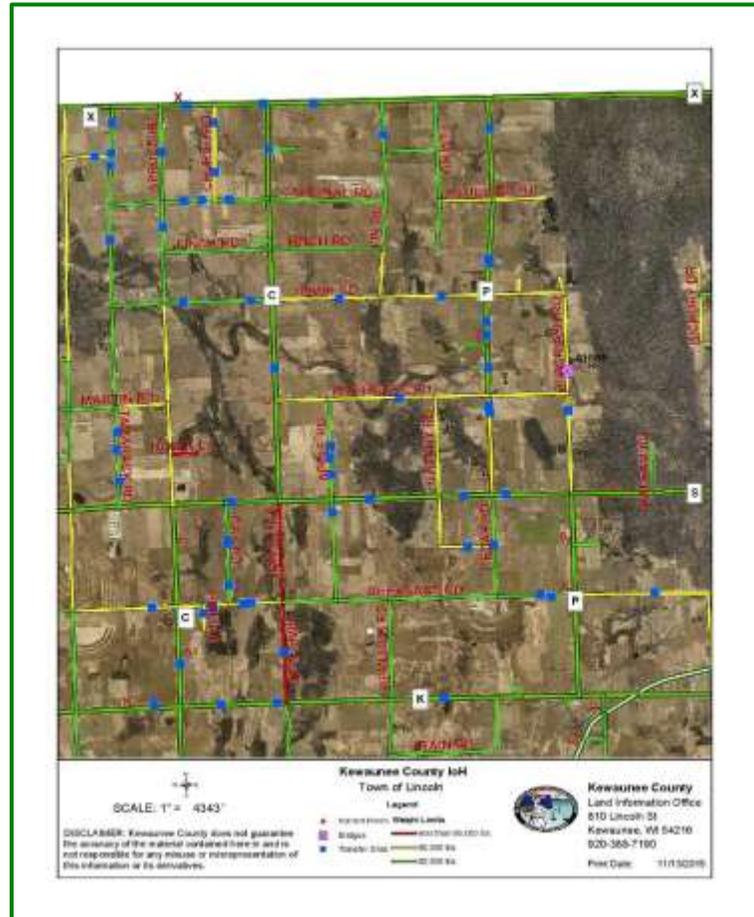
- Land operator/custom hauler will abide by Act 377, Implements of Husbandry Law in accordance with corresponding permits issued. Approved roads for use and routes should be utilized in accordance of permit.
- It is recommended the land operator notify town officials where transfer sites are located so they can be recorded on the town's electronic mapping system. Transfer stations will be numbered according to location and land operator. All transfer sites located in a town should be reported to town officials for electronic mapping regardless if it is located on town, county, or state highways.
- It is recommended that land operators notify town officials in all towns hauling in/through/to and the county highway department when hauling to transfer stations. Land operators should provide appropriate abatement according to safety level assigned.
- Land operator will determine transfer station location taking all road safety and environmental aspects into consideration.
- Safety level will be determined by road grade, roadside obstructions, proximity to tile inlets and bodies of water:
  - Level 1 - Trucks can be parked on road shoulder with appropriate signage: minimal risk to motorists.
  - Level 2 - Trucks can be parked on road shoulder with appropriate signage, cones, and flagger(s). Motorists cannot safely pass around parked vehicles without assistance of a flagger.
- It is recommended that no more than two trucks will be allowed to park at transfer site at any given time under normal circumstances. If truck traffic should back up due to

equipment break down or other extenuating circumstances, it is recommended trucks park at a near alternate location.

- Land operator will be responsible for removal of mud from public roads on a regular basis. If conditions have created excess mud (including manure and debris), it is recommended the land operator contact the local town chair to notify them of the situation. Regular mud removal is a best management practice.

The recommendations above were developed by the Implements of Husbandry Work Group in February 2015. Members included:

- Chair Brian Paplham, Town of Pierce
- Aerica Bjurstrom, UW-Extension Agriculture Agent
- Ryan DeBroux, Custom Operator
- Duwayne Ducat, Dairy Producer
- Todd Every, Kewaunee County Highway Commissioner
- Matt Joski, Kewaunee County Sheriff
- Todd Koss, Crop Consultant
- David LaCrosse, Dairy Farm Manager
- John Pagel, Dairy Producer
- Steve Tadisch, Town of Carlton Supervisor



The following letter was sent to CAFO owners, operators, and haulers in April, 2017.

In an effort to communicate across a wide-range of stakeholders, the following recommendations shall be implemented universally in the Townships of Lincoln, Pierce, Ahnapee, Casco, Carlton, Franklin, Luxemburg, Montpelier, and Red River. Furthermore, the Townships of Forestville and Brussels along with the Door County Highway Department have chosen to adopt these measures as well. As elected officials, it is imperative that we have a clear and consistent message pertaining to the support of our collective infrastructure and the safety of our citizens. In 2015, a number of recommendations were issued by the Implements of Husbandry work group that encompassed a

broad range of farmers, haulers, law enforcement, and agricultural experts. We support these recommendations and request that we adhere to them in the best interest of safety for everyone involved. Our collective townships respect the need for clear and consistent expectations regarding the use of our public infrastructure. That being said, the town chairmen from each township will expect cooperation in maintaining a clear and open line of communication regarding the application and distribution of a variety of agricultural products. The following bullet points outline our expectations and purposefully reflect the industry recommendations. Therefore, failure to adhere to these expectations will result in documentation of non-compliance and further law-enforcement action.

- It is requested that land operators notify town officials when hauling in/through/to respective townships.
- Transfer sites shall be recorded with town officials 12 hours prior to set up.
- Land operator/Town official shall determine transfer station location while considering road safety and environmental impacts.
- Signage utilized must meet DOT and ANSI standards, be clean, and
- It is requested that no more than two trucks be allowed to park at a transfer site at any given time. Should a problem occur, we ask that trucks be diverted to a safe alternative location to minimize road congestion.
- It is requested that mud be removed from public roads at effective and efficient intervals. In some cases, regular onsite mud removal shall be provided to maintain a safe travel corridor. (346.94(5) "Placing injurious substance on highway" \$200.50)
- Blocking a corridor shall be enforced (346.51(1) "Improper parking on/off roadway" \$164.50)
- Land operators and custom haulers shall abide by Act 377, Implements of Husbandry Law in accordance with corresponding permits issued. Only approved roads shall be utilized in accordance with the permit.
- Weight limits shall be strictly enforced by the State Patrol
- 80,000 on posted roadways---not to exceed 92,000 without posting.
- Permit to exceed the aforementioned weight limits shall be requested 24hrs in advance of usage. Physical permit must be present in the vehicle.

Should all of the aforementioned stakeholders remain consistently accountable to these measures, we can look forward to a consistent and productive year. Please refer to your town officials when communicating your intentions.

#### Town of Lincoln Highway Spending, 2006-2016

- |                       |                       |
|-----------------------|-----------------------|
| • 2006 - \$193,652.34 | • 2012 - \$219,247.52 |
| • 2007 - \$193,652.64 | • 2013 - \$178,440.66 |
| • 2008 - \$219,462.62 | • 2014 - \$145,754.73 |
| • 2009 - \$222,013.23 | • 2015 - \$107,640.78 |
| • 2010 - \$139,763.00 | • 2016 - \$155,634.46 |
| • 2011 - \$163,147.54 |                       |

### Adopt-A Road Initiative

In August 2015, the Town Board and several volunteers organized a new volunteer initiative, “Adopt-A-Road”, in order to keep the road ditches clear of trash and debris. Interested individuals and businesses choose a designated section of road and committed to a one-year period of road clean up. Reflective vests were provided to all volunteers for safety, and a lightweight trash picker to alleviate some bending. The importance of this initiative is to highlight the cooperative nature of the residents of our community.

“With a little work from enough people, we can make a big difference in our town’s appearance.”



### Transportation Plan

#### Pedestrian and Bicycle Facilities

As with most rural communities, pedestrian and bicycle access in the Town of Lincoln is limited to the existing road network. This poses risks for children, the elderly, and people with disabilities. This is even truer in Lincoln Township as a portion of the Ahnapee Trail runs through the southern sections of the Town. To provide safe access for pedestrian and bicycles the Town may:

- Seek funding to add wider, paved shoulder to town roads.
- Work with Kewaunee County and WisDOT to include pedestrian and bicycle facilities along county and state highways when these routes are repaired or reconstructed; identify potential routes to connect the Town with the Ahnapee State Trail terminating in the City of Kewaunee.
- Add road signs advising motorists that bicyclists may be present

Ahnapee State Trail, courtesy WDNR



The primary mechanism for creating a pedestrian and bicycle system is a Bicycle & Pedestrian Master Plan. Such a plan identifies existing and potential bicycle routes and pedestrian improvements within the Town. It would also identify and prioritize pedestrian/bicycle facility needs and provide references for best practices in planning, designing, implementing, and maintaining those facilities. The plan would serve as a blueprint for continuous improvement of pedestrian and bicycling conditions throughout the township.



Courtesy Town of Minong, Wisconsin

### Asphalt vs. Gravel Roads

Road maintenance generally accounts for the largest town budget expenditure. With recent cuts in state funding, a greater portion of the cost of repairing and replacing paved roads falls on local taxpayers. In communities like the Lincoln Township, where many of the roads experience light traffic loads or are primarily used by agricultural equipment, some may question the merit of expending such a large percentage of limited Town resources on their upkeep.

This is especially true given the disproportionate wear and tear due to residential vehicles versus agricultural use, where agricultural land is taxed at a fraction of the rate of residential property. In Kewaunee County, agricultural land represents a mere two percent of the equalized value of the tax base but 70% of the land in the county.

It is further divided between implements of husbandry (haybines, combines, and harvesting equipment) that use the roads occasionally and industrial haulers of agricultural wastes. The latter can use any given road over two hundred times a day for round trip runs while emptying a wastewater lagoon onto a crop field. It is no wonder that residential taxpayers question elected officials about this taxation disparity.

The paved roads that brought rural America into the 20th century may start to disappear across the Midwest in the 21<sup>st</sup> century. Local officials, facing rising pavement prices, shrinking budgets, and fewer residents, are making tough decisions to regress. Many rural roads are deteriorating faster than they used to because farm and industrial equipment are heavier than ever. Meanwhile, the cost of pavement has risen dramatically in recent years. In Northeast Wisconsin, seal coat runs from \$26,000 to \$40,000 per mile for a road in good shape. If a road has deteriorated to the point where it needs replacement, the cost is from \$440,000 to \$540,000 per mile.<sup>1</sup>

With maintenance costs included, engineers have often used a rule of thumb that a road needs 150 to 200 cars a day, or the equivalent in heavyweight traffic, to be worth paving. Few town roads see this kind of daily car and light truck traffic. Gravel isn't free, but it's far less expensive, and will likely be considered an option for roads that see light vehicle traffic but heavy truck traffic—unless the taxing mechanism for roads shifts from the residential base to those more heavily impacting road wear and tear. In light of the fact that state politicians consider shifting road taxes to the

<sup>1</sup> Portions of this paragraph excerpted from *Making a Rural Comeback: The Old Gravel Road*, Minnesota Star Tribune, March 2011.

agricultural sector “political suicide”, ideas that have been floated include impact fees for industrial haulers and a cow tax for CAFOs.

### Capital Improvements Plan

A Capital Improvements Plan (CIP) assists in planning for major project costs by creating a multiyear scheduling plan for physical public improvements, including transportation. Scheduling is based on the projection of fiscal resources and prioritization of improvements five to six years into the future. Capital improvements include new or expanded physical facilities that are relatively large in size, expensive, and permanent. The town’s CIP outlines the community’s capital item needs and purchase plans, including:

- New or improved town community center.
- Funds for emergency vehicle purchase and replacement.
- Trail development.
- Street improvements (e.g. lighting, widening, crosswalks, paved shoulders, corridor studies, etc.).



### **Proposed New Town of Lincoln Community Center**

Capital items are generally defined as those that are expensive (cost \$5,000 or more) and will last at least 3-5 years. A CIP also includes improvement projects required for the community’s future and the appropriate timeline and funding to be followed to implement the improvements. In Lincoln Township, capital improvements are few and typically considered during the annual budget process with citizen input.

## Utilities & Community Facilities

### Introduction

Utilities and community facilities comprise the systems, services, and infrastructure necessary to support a municipality, its residents, and its economy. Lincoln's long-term wellbeing is dependent on the adequacy of this support system. Anticipating and preparing for the future utility and facility needs of the community is essential to ensuring its sustainable future.

### Utilities & Community Facilities Vision

*The Town of Lincoln will provide well-planned, cost-effective municipal services and infrastructure, in harmony with its rural character and natural environment, and maintain a fair and equitable tax rate for its citizens and business owners. It will continue to pursue opportunities with its municipal neighbors to increase the efficiency and lower the cost of providing these essential services.*

### Utilities & Community Facilities Issues & Initiatives

#### Algoma School District Update

The Algoma School District (ASD) is composed of two educational buildings. Algoma Elementary School is located at 514 Fremont St. and the Middle/High School and Business District Office is located at 1715 Division St. ASD is only one of just a dozen or so districts across the state with increasing enrollment. In 2011 the enrollment was around 605. Currently, the district serves 757 pupils from Early Childhood through 12<sup>th</sup> grade. That is impressive growth by any standard and one that is expected to continue considering the Elementary School has very large class sizes from early childhood through 3<sup>rd</sup> grade. The hope is that enrollment will stabilize at or around 800 in the next 5-10 years. The district proudly employs 55 highly qualified educators.

There was a \$4.86M referendum on the ballot in April, 2016. The referendum was very successful boasting an 80% approval rating, the highest in the state. The referendum was for renovations, improvements, and additions to elementary school, high school restroom renovations, parking lot improvements at each school building, and equipment acquisition. The last time a referendum was approved was in 1997.

#### Luxemburg-Casco School District Update

The four schools in the Luxemburg-Casco School District had a 2015-2016 total enrollment of 1,911 students. Luxemburg-Casco Primary School has an enrollment of 470 students in grades PK-2, and recently added 4-year old kindergarten. The school is located at 318 N. Main Street in the Village of Luxemburg and has a student-to-teacher ratio of approximately 15/1.

Luxemburg-Casco Intermediate School had a 2015-2016 enrollment of 501 students with a ratio of approximately 15 students for each teacher. The grades 3-6 school is also located at 318 N Main Street in Luxemburg. Luxemburg-Casco Middle School is located at 619 Church Avenue in the Village of Casco. The school had a 2015-16 enrollment of 305 students with a student to teacher ratio of approximately 15/1. It provides an education for grades 7 and 8. Finally, Luxemburg-Casco High School provides an education for students in grades 9-12. It had a 2015-2016 enrollment of 644 students with approximately 18 students per teacher. Its offices are located at 318 N. Main Street in the Village of Luxemburg.

In May, 2015, the district conducted a two and a half day “comprehensive planning” session with parents and stakeholders about the state of the district and where the future should lead. Out of those discussions came a blueprint to guide the district for expected future growth. Areas to be addressed ranged from and educational technology and business partnerships to facilities and technology upgrades. The district is preparing for slight growth over the next five to 10 years.

### Septic Systems

Over the last decade Lincoln, Township has experienced an increasing groundwater contamination problem. Several potential sources of that contamination have been researched including, but not limited to, faulty septic systems. Although owners of large-scale farms, also known as Concentrated Animal Feeding Operations (CAFOs), have argued for a long time that the amount of contamination was exaggerated, and that antiquated septic systems and bad wells played a bigger role in the problem than agriculture, research does not scientifically support those allegations and actually reveals the contrary.<sup>2</sup>

The Department of Safety and Professional Services (DSPS) is the state agency that oversees regulations regarding private onsite wastewater treatment systems (POWTS) also known as septic systems. Wisconsin State Statute Chapter SPS 383 covers POWTS regulations. According to the DSPS website, “County staff are particularly important to protecting our wells and groundwater from pollution through their services in plan review, permit issuance, and inspection of installation and maintenance of private onsite wastewater treatment systems. Counties are the basis for the Wisconsin Fund, which provides money for improvement of failing POWTS.” In Kewaunee County, the county zoning department is the agency responsible for septic system permitting and compliance oversight.<sup>3</sup>

On September 11, 2015, Glen Selner, the Kewaunee County Zoning Administrator, gave a presentation to the WDNR Compliance Work Group on the status of septic systems in Kewaunee County. County zoning has a GIS system to track septic systems. All newly installed systems are inspected. Old systems are reviewed with the use of air photos and soil maps. System inspections are ongoing across the county, with the systems installed prior to 1978 having the highest priority, as well as those with obvious discharges to the surface. Owners of non-compliant septic systems have one year to replace their systems. Nearly 80% of the septic systems in Kewaunee County are compliant with state standards, one

<sup>2</sup> Excerpted from “CAFO owners discuss role in pollution solutions,” Kewaunee Star-News, April 2, 2016.

<sup>3</sup> Excerpted from Septic System Overview, WDNR Compliance Work Group Draft Report, 10/11/15.

of the highest percentages in the state of due to the diligence the county zoning department. Countywide, perhaps 10% of the septic systems are non-compliant and need replacement.<sup>4</sup>

As of March 1, 2016, Lincoln Township has 385 septic systems, of which 326 (84%) are compliant with current state standards or tagged for replacement if they failed inspection. Of the remaining 59 (16%) non-inspected septic systems in Lincoln Township, the zoning administrator estimates that perhaps 50% are non-compliant and must be replaced. This means that perhaps 30 or 8% of the septic systems in Lincoln Township are non-compliant and need replacement.<sup>5</sup> To put this in perspective, those 30 homes generate the equivalent amount of waste of five dairy cows.

Kevin Masarik is the Groundwater Education Specialist for the University of Wisconsin-Stevens Point Center for Watershed Science and Education. Masarik is a highly sought out presenter by communities doing well testing in their areas. One comparison Masarik makes is the nitrogen loading on groundwater between a four-person household living on 20 acres and 20 acres planted in corn. The nitrogen loading from the septic system equals less than three percent of the nitrogen applied and leached out of the cornfield.<sup>6</sup>

In 2014, Masarik and Davina Bonness, now the Kewaunee County Conservationist, presented their findings of a yearlong well testing program in Lincoln Township.<sup>7</sup> For the ten wells investigated, an average of 0.8% (eight tenths of one percent) of the nitrogen in the wells was from the septic systems; the remainder from agricultural sources. Some of Bonness and Masarik's conclusions include:

1. "The degree to which nutrient management has been implemented around these wells (89% of cropland acres) is extensive...The extent to which nutrient management plans are being followed could not be verified; unless information exists to show otherwise, we assume that they are an accurate representation of what is taking place on the landscape. Therefore, we conclude that the elevated concentrations of nitrate in these ten wells are not the result of gross mismanagement or negligence."
2. "If the goal is significant long-term reduction of nitrate concentrations in groundwater of Lincoln Township, it would likely require active efforts to reduce nitrogen inputs (e.g. less nutrient intensive cropping systems, strategic reduction in acreage, etc.) beyond the current source, rate, and timing risk management strategies outlined in existing nutrient management plans."

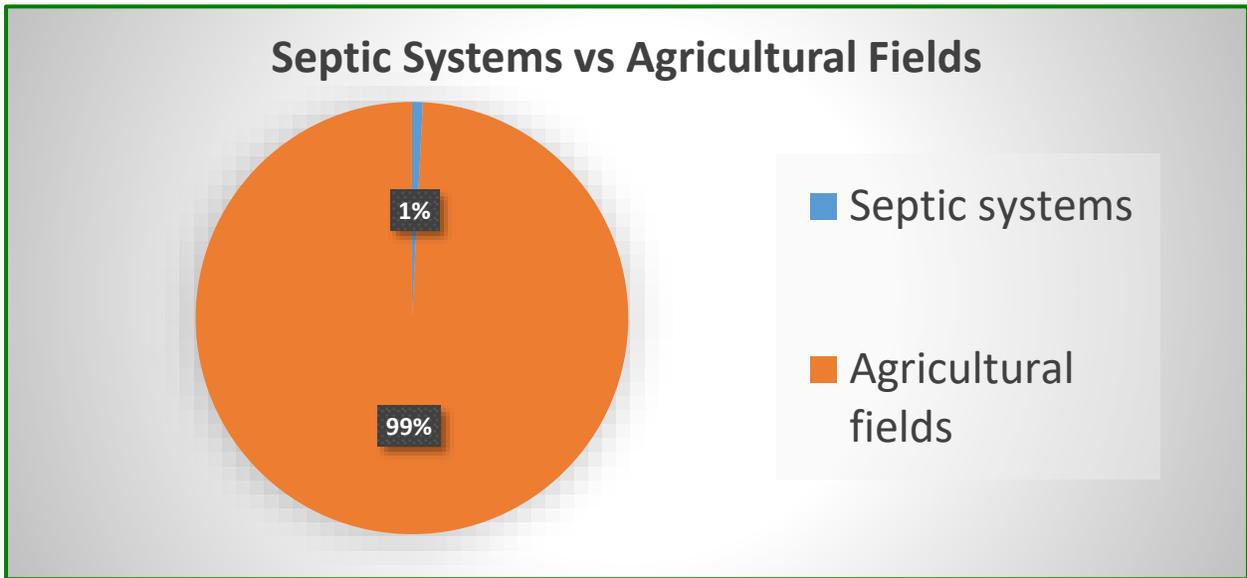
As a result of all of the above and other discussions, the WDNR Compliance Work Group accepted that less than one percent (1%) of the waste generated and/or spread in Kewaunee County is attributable to non-inspected and potentially non-compliant septic systems. Accordingly, the WDNR Compliance Work Group considered septic systems, for all intents and purposes, to be a very minor contributor to contamination of the county's groundwater, and would no longer take time to discuss or consider the issue.

<sup>4</sup> Glen Selner, WDNR Compliance Work Group, September 11, 2015.

<sup>5</sup> Kewaunee County Zoning Department 2015 Annual Report to the Kewaunee County Board of Supervisors, March 15, 2016.

<sup>6</sup> Effects of Nutrient Management Practices on Water Quality: Nitrogen Issues and Concerns.

<sup>7</sup> Investigating Inter-annual Variability of Well Water Quality in Lincoln Township, June 2014.



As stated above, the number of non-compliant septic systems in the township is perhaps 30 out of 385 total systems in Lincoln Township. Consequently, the Town of Lincoln will accept the similar position that it is clear that the number of non-inspected and potentially non-compliant septic systems in Lincoln Township is very small contributor to the overall groundwater contamination situation we are experiencing. Further, the preponderance of data shows that the Kewaunee County has a well-managed septic system inspection and compliance program that would make efforts at the Town level redundant and inefficient. We need to look at other ways of reducing contamination in our groundwater.

Regardless, the Kewaunee County Zoning Office has proposed an amendment to the Sanitary Ordinance that would require all septic systems installed prior to January 1, 1985 to have a new soil evaluation completed within four years. In order to support all efforts to assure clean groundwater, the Town of Lincoln supports any efforts that will help resolve groundwater contamination problems, regardless or source.

### Utilities & Community Facilities Plan

#### Renewable Energy Systems

With rising energy prices and a greater awareness of the environmental impacts of conventional power plants, more Americans are utilizing personal energy systems to reduce costs associated with electricity, heating, and cooling. In addition, state and federal tax incentives have reduced the total



costs of these systems making them available to a greater percentage of users. Personal energy systems include photovoltaic solar, solar thermal, small wind, geothermal, and EPA approved wood-fired boilers among others. ,

Lincoln Township has a decades-long history of citizen interest in utilizing wind and solar energy resources. In addition, Lincoln Township (and Red River Township) is home to the first two wind farms east of the Mississippi River, one installed and operated by Madison Gas and Electric and the other by Wisconsin Public Service Corporation.



### Methane Digesters<sup>8</sup>

Anaerobic manure digesters (or methane digesters) collect manure and convert the energy stored in its organic matter into methane, which is used to produce energy (gas or electricity) for on-farm or off-farm use. The conversion to methane is the result of anaerobic digestion, a biochemical process in which organic matter is decomposed by bacteria in the absence of oxygen. Digesters must be airtight for anaerobic digestion to occur. The resulting methane (known as biogas) is flared or combusted to generate energy. Generally, the manure used in digesters should have a total solids concentration of 14% or less and be mostly free of soil, sand, stones or fibrous bedding material. Supplemental feedstock such as food processing wastes and wastewater can often be added to manure digesters. The benefits provided by a methane digester include:

- Turns waste gas (methane) into a source of renewable energy.
- Generates energy that can be sold.
- Generates heat or other energy for on-farm use.
- May qualify for carbon credit payments.
- Results in potentially higher-quality manure for use on crops (more nutrient-rich and fewer weed seeds).

Lincoln Township is home to one methane digester serving a large dairy operation, Dairy Dreams LLC.



Courtesy RCM Digesters

<sup>8</sup> Excerpted from Manure/Methane Digester, Minnesota Department of Agriculture website, 2016.

It is estimated that between the 14 wind turbines owned by Wisconsin Public Service and eight wind turbines owned by Madison Gas and Electric operating in Lincoln Township plus the methane digester operated by Dairy Dreams, the township generates over six and a half times the electricity consumed by all of the residences in the entire township annually (not including the large CAFOs or other commercial operations).



Broadband Internet

Access to high-speed (or broadband) internet service is critical in the 21st century economy. The improved connectivity provided by such access supports robust business services, expands access to health care, and improves the quality of education in schools. It has become a necessity, as vital to rural America's future today as electricity and the telephone were in the last century. The technology is a must for the types of home-based and value-added businesses that may grow and thrive in a rural community like Lincoln.

## **Chapter 3:**

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## **Agricultural, Natural, & Cultural Resources**

### **Introduction**

The Town of Lincoln has a strong farming history. Its landscape is dominated by agricultural land, woodlands, wooded wetlands, and streams...each contributing to the community's rural character and sense of place. Maintaining the agricultural history and rural character of the community is a key goal of this plan.

### **Agricultural, Natural, & Cultural Resources Vision**

*The Town of Lincoln will adopt policies and programs to preserve its prime agricultural lands, unique natural environment, and cultural and historic resources to ensure that these assets remain available for the benefit and enjoyment of present and future generations.*

### **Agricultural, Natural, & Cultural Resources Issues & Initiatives**

#### Farming in Lincoln Township

The face of agriculture in the state, Kewaunee County and Lincoln Township has changed over the last two decades. Wisconsin is now the largest producer of organic crops second only to California. Kewaunee County experienced a 38% growth in dairy herds since 2000.

Prior to 2000, traditional family dairy farms dominated Lincoln Township<sup>1</sup>. Between 2000 and 2013 the growth of the industrialized dairy model known as Confined Animal Feeding Operations (CAFOs) fueled a growth in the number of cows in the township. During that same period, the number of independent, family run dairy farms has plummeted.



In 2006, the Township's Comprehensive Smart Growth Plan called for more "niche", alternative and specialty agricultural operations.

While no database exists within the governmental agencies to track organic, sustainable, or simply alternative agricultural or agri-tourism efforts, the township is home to a handful of organic,

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<sup>1</sup> From USDA Agricultural Census for 2002 to 2012.

natural and sustainable farms. These include more than 300 acres in organic small grains, legumes, and alfalfa crops. Additionally, grazing dairy and meat livestock, an orchard, a tree farm, and a maple syrup operation have all started in the last decade.

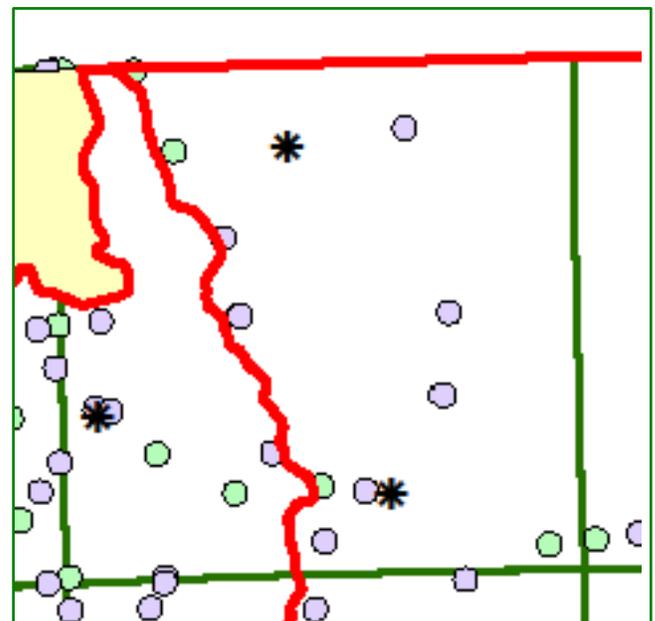
In partnership with NRCS, many acres within the township are being placed in multi-year conservation programs intended to provide wildlife habitats while conserving and protecting sensitive natural resources.

The outlook is that consumer demand will continue to fuel the sustainable farming trend. When coupled with the water quality issues caused to a great extent by industrial farming practices, it would seem that growth of these alternative agricultural operations would be in the best interest of Lincoln Township.

### Dairy Farming in Lincoln Township

Lincoln Township has a total of 19 dairy farms of various sizes. Three farms are WPDES permitted and categorized as CAFOs (Confined Animal Feeding Operations). A fourth farm is close to being in this category, but currently categorized as mid-sized. The other 15 farms are categorized as small with four of these on the upper end of the small category.

As reported in their 2015 Nutrient Management Plans, there are 16,579 dairy cattle of various ages and sizes in Lincoln Township.<sup>2</sup> Of those, the three CAFOs account for 13,773 dairy cattle, and the mid-sized farm another 800. The balance of 2,806 dairy cattle are distributed among the other 15 small dairy farms.



### Air Quality Issues in Lincoln Township

One particular downside to the dairy CAFOs in the Lincoln Township is the storage of manure in lagoons holding multiple-tens-of-millions of gallons of agricultural wastewater. While storing manure and other nutrients for application on fields, these lagoons emit ammonia, sulfur dioxide, and other noxious gases that have caused considerable

<sup>2</sup> Numbers provided by the Kewaunee County Land and Water Conservation District based on 2015 Nutrient Management Plans.

consternation with the non-CAFO neighbors. One neighborhood within close proximity to a CAFO has seen the exodus of at least nine families who have sold their homes due to odors. (While the biggest complaints about CAFOs were odors, other issues cited were noise, increased road traffic, reduced property values, and not wanting to live near a CAFO.)

While the owners, managers, operators, and employees of the CAFOs in the Kewaunee County are part of our community, there is little support for the expansion of this industrial model of farming in Lincoln Township and the county. Many residents are hoping for alternatives.

### Specialty Farming

On average, nearly 3,000 acres of productive farmland are lost to development in the U.S. each day. Adapting to survive, many farmers have embraced a new paradigm that focuses on agricultural models custom-fit to changing markets and filling local niche markets with specialty produce and value-added products. Specialty (or niche) farming provides an alternative to “conventional” agricultural practices, particularly for smaller farmers attempting to compete with larger operations. According to Agricultural Census data nearly 300,000 new farms have begun operations since 2005. Compared with all farms nationwide, these new arrivals tend to have more diversified production, fewer acres, lower total-dollar sales, and operators who also work off-farm. Lincoln Township’s proximity to Green Bay, Door County, and Highways 42 and 54 tourist traffic provides opportunities for directly marketing specialty agricultural products to local consumers.

Examples of specialty agricultural products include:

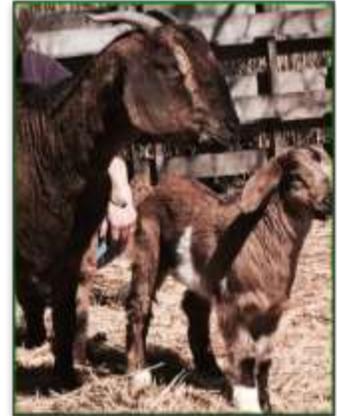
- Agriforestry, wood products, and firewood
- Aquaculture products
- Alternative grains and field crops
- Industrial, energy, and non-food crops
- Native plants and ecofriendly landscaping
- Organic meats, milk, and cheese
- Organic produce, maple syrup, fruits, and cash crops
- Ornamental and nursery crops
- Post-harvest handling and processing
- Medicinal and culinary herbs
- Raising of non-traditional farm animals (llama, ostrich, bison, etc.)
- Seeds and plant breeding
- Specialty, heirloom and ethnic fruits and vegetables



### Organic Agriculture

Organic farming is a particularly attractive specialty farm option given that organic food is the fastest growing segment of the agricultural industry. Products that once occupied a boutique marketplace niche are becoming mainstream as consumers seek healthier alternatives to conventional farm produce. Organic and specialty farming counter the notion that farms must become very big or be lost to development. They provide a profitable choice for small, family farmers.

“Given current trends in consumer demand, as much as 20 percent of cropland in America could be organic in the next decade or so, but land suitable for transition is getting harder to come by.”<sup>3</sup>



### Community Supported Agriculture<sup>4</sup>

Community Supported Agriculture (CSA) is a system in which a farm operation is supported by shareholders who share both the benefits and risks of food production. CSAs consist of a community of individuals who pledge support to a farm operation so that the farmland becomes the ‘community’s farm’, with the growers and consumers providing mutual support and sharing the risks and benefits of food production. Typically, members pledge in advance to cover the anticipated costs of the farm operation and farmer’s salary. In return, they receive shares in the farm’s bounty throughout the growing season, as well as satisfaction gained from reconnecting to the land and participating directly in food production. Members also share in the risks of farming, including poor harvests due to unfavorable weather or pests. By direct sales to community members, who have provided the farmer with working capital in advance, growers receive better prices for their

crops, gain some financial security, and are relieved of much of the burden of marketing.

### Conservation Easements

A conservation easement is a voluntary but legally binding agreement between a landowner and a land trust or government agency that limits present and future development of a parcel. Under a

<sup>3</sup> Paying Farmers to Go Organic, Even Before the Crops Come In, Stephanie Strom, New York Times, July 14, 2016

<sup>4</sup> Excerpted from United States Department of Agriculture, Alternative Farming Systems Information Center, 2015.

conservation easement, the landowner retains ownership of the land (within the terms of the easement, i.e. only for farmland or natural space, not for development) and a land trust or similar organization assumes the responsibility for protecting the land's conservation values.

Donated conservation easements that meet federal requirements can provide significant tax advantages to landowners since their land will be assessed as undevelopable land, which has a much lower tax value than developable land. Qualified easements may also generate charitable contribution deductions for income and transfer tax purposes. All land is "taxed" at the same rate, though value determinations are variable.

### **Agricultural, Natural, and Cultural Resource Programs**

#### Farmland Preservation Program

The Wisconsin Farmland Preservation Program (Chapter 91, Wis. Stats.) is designed to help local governments and landowners preserve agricultural land, minimize conflicting land uses, and promote soil and water conservation. Under the program, local governments may adopt and have certified a farmland preservation zoning ordinance that enables eligible landowners to claim farmland preservation tax credits. The credits are applied against tax liability on an annual basis.

#### FSA – Conservation Reserve Program

The Conservation Reserve Program (CRP) is a land conservation program administered by the Farm Service Agency. In exchange for a yearly rental payment, farmers enrolled in the program agree to remove environmentally sensitive land from agricultural production and plant species that will improve environmental health and quality. Contracts for land enrolled in CRP are 10-15 years in length. The long-term goal of the program is to re-establish valuable land cover to help improve water quality, prevent soil erosion, and reduce loss of wildlife habitat.

#### **Other NRCS and WDNR programs include but are not limited to:**

- FSA Conservation Reserve Enhancement Program (CREP)
- NRCS Environmental Quality Incentives Program
- NRCS Farm and Ranch Lands Protection Program
- NRCS Financial Assistance Program
- NRCS Landscape Initiatives Program
- NRCS Conservation Stewardship Program
- WDNR Knowles-Nelson Stewardship Program – Acquisition and Development of Local Parks Program
- WDNR Knowles-Nelson Stewardship Program – Acquisition of development Rights Program
- WDNR Managed Forests Law
- WDNR Land and Water Conservation Fund Program
- Wisconsin Forests Landowners Grant Program

UW-Extension Wisconsin Barn Preservation Program<sup>5</sup>

Despite the rich stock of historic barns in the Wisconsin landscape, we see fewer attempts to save them. The threats to these buildings are many, including urban growth and its associated roadway expansion, improper maintenance and upkeep, and new construction techniques, materials, and design. The University of Wisconsin-Extension and Wisconsin Historical Society, are spearheading a multifaceted approach aimed at saving many of Wisconsin's historic agricultural buildings. The Wisconsin Barn Preservation Program is aimed at both addressing public concerns and drawing attention to the importance of preserving the elements of Wisconsin's rural countryside, those elements that make it a unique part of America.

Some of the strategies being pursued by this group include the coordination of regional educational workshops, the production of technical resource materials and the support of non-profit organizations that can help orchestrate efforts to establish grants and other kinds of technical assistance programs aimed at helping barn owners interested in preservation.

Kewaunee County Land & Water Conservation Department<sup>6</sup>

The Kewaunee County Land and Water Conservation Department provides local leadership in carrying out programs that conserve Wisconsin's land and water resources. Working closely with the Land and Water Conservation Committee, they are the primary local delivery system of natural resource programs. Their connection to county government gives them an understanding of local land and water resource problems and solutions serving as a reliable source for conservation assistance and planning. They provide educational, technical and conservation planning assistance to help communities control soil erosion; protect lakes, streams and groundwater; and manage woodlots, forests and wildlife.

## Economic Development

Economic development entails efforts that seek to improve the wellbeing and quality of life of a community by creating and retaining jobs, growing incomes, and expanding the local tax base.<sup>7</sup> Creating a successful economic development plan involves defining the local economy, determining its strengths and weaknesses, anticipating change, building resilience through diversification, and identifying sources of financial and technical assistance. It depends upon the sustained actions of elected and appointed officials in partnership with the private sector and enthusiastic community volunteers to promote the standard of living and economic health of a community. Such actions target multiple areas of the economy including development of human capital (through higher education and job training), critical infrastructure, regional competitiveness, environmental sustainability, social inclusion, and health and safety, among others. The elements of a successful economic development plan include:

<sup>5</sup> Excerpted from Wisconsin Barn Preservation Program website, 2016.

<sup>6</sup> Excerpted from Wisconsin Land and Water website, 2016.

<sup>7</sup> Definition courtesy Salmon Valley Business Center.

- A detailed analysis of the local economy.
- A common vision based upon what residents and businesses value in the community.
- Strong collaboration between the public and private sectors oriented around agreed-upon goals.
- Diversity in the types of businesses and industries.
- Resilience, or the ability of the community to adapt quickly to change based on regional, national, and global economic conditions.
- Cooperation, not competition, between neighboring municipalities.

A vibrant economy is vitally important since it affects so many aspects of everyday life, including the ability to earn a living, refine skills and access training, attract new residents and businesses, and to access services. Economic development expenditures of money as well as time are investments in the community.

### Economic Development Vision

*Farming and agriculture-related businesses will remain the dominant sector in Lincoln's economy, supplemented by a mixture of commercial and light manufacturing uses in areas appropriate for such development. The Town will seek to expand communication technology and infrastructure to expand opportunities for telecommuting and home-based businesses. The Town will also seek to expand opportunities in eco- and agri-tourism.*

### Economic Development Issues & Initiatives

#### Rural Enterprise Network (REN)

In response to the 2007 Comprehensive Smart Growth Plans call for more specialty and niche farms, in late autumn of 2013, a group of Lincoln Township citizens created an advocacy group with the mission to foster small, sustainable, rural businesses in the Township. Their vision is to “facilitate the development of rural economic opportunities which focus on those enterprises that recognize the interdependence of economic, environmental, and societal issues by growing and prospering without diminishing the land, water, air, natural and cultural resources on which the community depends”.

To date, REN has held three annual workshops and over a dozen sessions focused on providing attendees with alternative, profitable, opportunities for their rural businesses and their farmland. They have co-sponsored a session with Wisconsin Farmers Union on rural solar energy options and a session with UW Extension on growing the local food market. In 2015 they held a small ruminant workshop for the area's sheep and goat farmers utilizing UW Extension resources. In February of 2016 REN Partnered with SLO Coop, ThedaCare Health Systems, Glacierland R&D and Northeast Wisconsin Technical College in “The Healthy Three” workshop



which focused on the importance and interdependency of our natural resources and food systems. In May of 2016 REN partnered with Midwest Organic and Sustainable Educational Services to bring NRCS's curriculum "Women Caring for the Land" to Algoma.

Most notably, in 2014, REN organized, launched and managed the Kewaunee County Farmers Market for three years, handing it off to Algoma in 2017. Billed as a "Market with a Purpose" this is the only market in the region that limits products sold at the Market to "food based or farm raised". Besides making traditional farmers market booths available to producers, REN created a "Nano Market" within the market for locals with small gardens to sell their products on commission without going through the expense to get a full space. Having just started their third season, the Market hosted almost 5,000 visitors in 2015.



In November of 2015 REN announced a joint Farm to School venture with Algoma School District. REN is working with local farmers to produce foods that can be used in meals served in the District's cafeterias. Having partnered with the Feeding America organization, REN is also expanding access for local producers to sell into more than 20 additional school districts in Northeastern Wisconsin.

### **Economic Development Plan**

#### Growing from Within

Local ownership of businesses tends to maintain economic diversity because it builds on the loyalty shared between customers, owners, and their community. Local businesses offer connections to place through everyday transactions. They keep money circulating in the community, thereby stimulating the economy and creating new economic niches. Businesses that begin in a community tend to stay in that community. The most effective way to ensure a healthy local economy over time is to offer "assistance" for those interested in starting their own business and provide the means to relocate within the community when growth merits such a move.

#### Business Retention

The key to a successful business retention strategy is building trust between business owners and local officials. Communities must identify the specific gaps and niches their economies can fill, and promote a diversified range of specialized industry clusters drawing on local advantages to serve local, regional, and international markets. Local government, business groups, educators, and the

public must work together to create a vibrant local economy, through a long-term investment strategy that:

- Encourages local enterprise
- Serves the needs of residents, workers, and businesses
- Promotes stable employment and revenues by building on local competitive advantages
- Protects the natural environment
- Increases social equity
- Is capable of succeeding in the local, regional, and global marketplace<sup>8</sup>

Local businesses provide employment for a wide array of supporting services. They hire architects, designers, cabinet shops, sign makers, and contractors for construction. Opportunities grow for local accountants, insurance brokers, computer consultants, advertising agencies, etc. Local retailers and distributors are more likely to carry locally made goods, thereby creating additional jobs for local producers. Some of the ways in which the Town of Lincoln may achieve high rates of business retention include:

- Assist businesses that have outgrown current facilities or sites with identifying new locations within the community.
- Supporting local business associations.
- Providing clearly understandable processes for construction and economic development within local ordinances.

### Eco- and Agri-Tourism

Agri-tourism provides opportunities to increase farm income and diversity in the local economy. Eco-tourism is one of the fastest growing segments of the travel industry. The Town's farming culture and natural environment create unique opportunities for such development.

### Social Media

Americans of all ages and backgrounds are increasing their use of social media tools as a way to connect to each other and the issues they care about. Local governments can use these same tools to promote the community and inform residents and business owners. Although benefit can be gained by using social media to augment traditional communication methods, it presents both opportunity and risk to municipal government. Prior to implementing a social media strategy it is important to develop an agreed-upon policy for its use.

Some of the ways in which local governments utilize social media include:

- Economic Development – Many companies use social media to scope out communities as they look to build or relocate their business. Economic developers use social media to attract those businesses to the area and build relationships with current ones. This is arguably the most important reason for local government to maintain an active social media presence.

<sup>8</sup> Excerpted from Ahwahnee Principles for Economic Development, Economic Development for the 21<sup>st</sup> Century, 2016.

- Community Building – Building a sense of community pride by recognizing local business, sharing photos and stories about the community, and marketing local events.
- Public Service Announcements – Emergency alerts and severe weather updates, general health and safety tips, road construction schedules, and other important local information.
- Governmental Meetings – Posting schedules, agendas, and meeting minutes.<sup>9</sup>

### **Economic Development Partners**

#### UW-Extension Center for Community & Economic Development

The UW-Extension Center for Community and Economic Development offers a number of programs intended to assist local governments with economic development activities. They include:

- Community Preparedness and Resiliency
- Downtown Revitalization
- Food Systems Initiative
- Tourism Development
- First Impressions Program

#### Bay Lake Regional Planning Commission

Bay-Lake Regional Planning Commission annually creates a Comprehensive Economic Development Strategy (CEDS) report, which evaluates local and regional population and economic activity. The purpose of the CEDS is to bring together the public and private sectors in the creation of an economic roadmap to diversify and strengthen the regional economy and to qualify the region for additional EDA assistance. A section within the CEDS identifies other economic development initiatives at the state, regional, sub-regional, and local levels. The CEDS analyzes local and regional economies and serves as a guide for promoting regional goals and objectives, developing and implementing a regional plan of action, and identifying investment priorities and funding sources.

#### Kewaunee County Economic Development Corporation

The Kewaunee County Economic Development Corporation (KCEDC) works pro-actively to retain, expand, develop and attract businesses that strengthen the economy of Kewaunee County. As the economy and markets transition, KCEDC helps business and local communities prepare and partner for adaptation and improvement. Targeted industries include:

- Agriculture
- Energy
- Fishing and maritime
- Manufacturing
- Tourism

<sup>9</sup> Excerpted from United States Department of Agriculture website, 2016.

## Chapter 4:

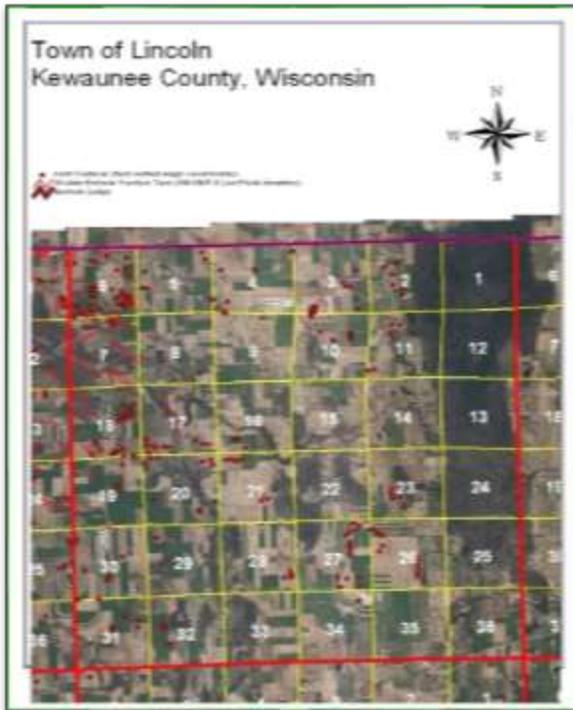
## Groundwater and Surface Water Issues

***“Surface water and groundwater are inexorably linked, and they should not be thought of as separate resources. In many cases, what affects one inevitably affects the other”.***

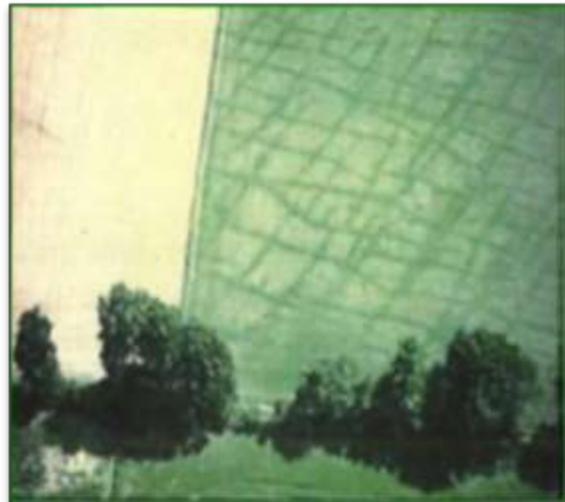
Mike Parsen, Hydrogeologist, Wisconsin Geological and Natural History Survey

Unless purchased from an outside source, every drop of water in Lincoln Township is pumped from private wells that tap groundwater from the local aquifer. Kewaunee County faces critical groundwater contamination issues, particularly in Lincoln Township with large areas of very shallow soil depths to bedrock, highly fractured bedrock, and numerous sinkholes. Dr. Mark Borchardt of United States Department of Agriculture (USDA) and Dr.

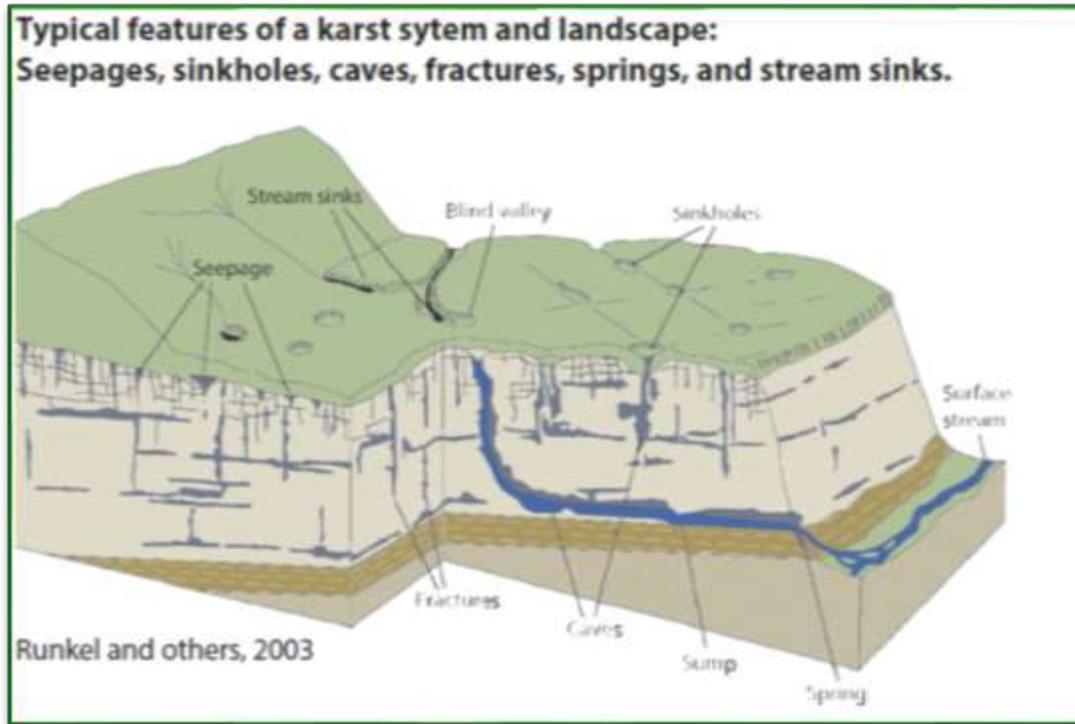
Maureen Muldoon of UW) have likened the town’s bedrock to Swiss cheese.



**From NE WI Karst Task Force Final Report**



The karst geology of Northeast Wisconsin and associated issues are well documented and should come as no surprise to anyone. Still, certain constituencies are requiring yet more science to identify the contamination source. Therefore the Township should be prepared to increase its partnership with researchers and agencies who can provide empirical evidence as to the source.



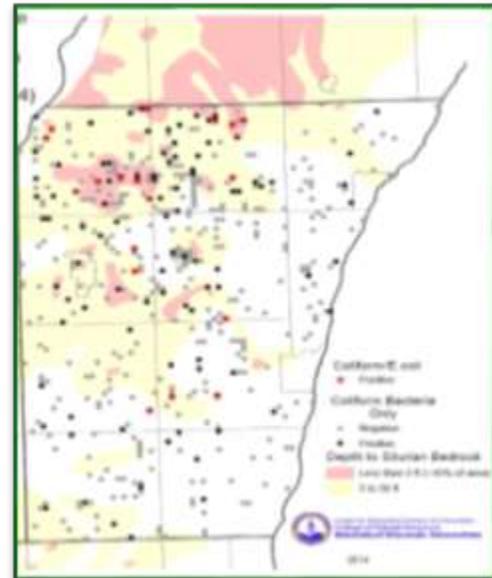
**Town of Red River Karst Fractures**



With increasing frequency, one or more of the local or regional media outlets has run a story about groundwater contamination problems in our county. The issue has drawn interest from the Natural Resource Conservation Service (NRCS), Environmental Protection Agency (EPA), Wisconsin Department of Natural Resources (WDNR), Department of Agriculture, Trade, and Consumer Protection (DATCP), US Fish and Wildlife Service (USFWS), and researchers from USDA, University of Wisconsin-Oshkosh (UW-O, University of Wisconsin-Green Bay (UWGB), Marquette University, the USDA and other universities and research partners.

In October of 2014, the US Environmental Protection Agency received a *Petition for Emergency Action Pursuant to the Safe Drinking Water Act, to Protect the Citizens of Kewaunee County, Wisconsin from Imminent and Substantial Endangerment to Public Health Caused By Nitrate and Bacteria Contamination of an Underground Source of Drinking Water*. The petition was submitted on behalf of Midwest Environmental Defense Center, Environmental Integrity Project, Midwest Environmental Advocates, Clean Wisconsin, Clean Water Action Council of Northeastern Wisconsin, and Kewaunee CARES.

According to the petition, “this petition is based on historic and emerging data that have been compiled by the University of Wisconsin – Stevens Point, the Kewaunee County Land and Water Conservation Department, the Wisconsin Department of Natural Resources, and other agencies and individuals showing that underground sources of drinking water in Kewaunee County consistently exceed state and federal drinking water standards for nitrate and routinely test positive for the presence of bacteria (including human pathogens), and therefore put the health of Kewaunee County residents at risk. Because state and local authorities have not acted or are precluded from acting under state law to abate this endangerment, swift and decisive action by EPA is necessary.”



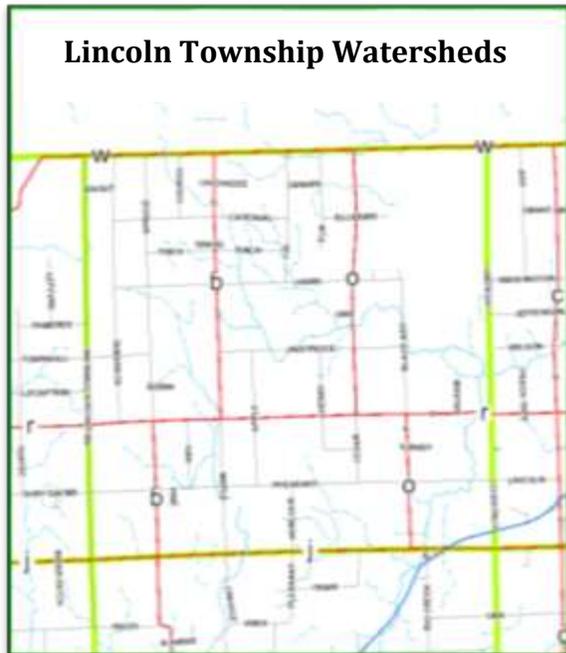
**Wells tested and failed**

As a result of this action, the DNR was moved to organize three Workgroups (Short Term Solutions, Compliance, and Sensitive Areas) to which the EPA had staff assigned.

As of this writing, the EPA continues to be actively engaged with stakeholders in Kewaunee County and with WDNR to identify solutions and pinpoint causes of groundwater contamination.

By 2014, all three rivers in Kewaunee County, the Ahnapee, Kewaunee, and East Twin, are listed on the EPA’s Impaired Waterways List. Tributaries to the Ahnapee and Kewaunee Rivers emanate from Lincoln Township. Silver Creek and Rio Creek contribute to the Ahnapee Watershed and Casco Creek flows into the Kewaunee River. All three were found to have

unsafe levels of e-coli in the Busse study.<sup>1</sup>



Meanwhile, in August, 2015, Jimmy Bramblett (formerly the NRCS national Chief of Staff to the Regional Conservationists in Washington, D.C.) of the NRCS in Madison began meeting with select groups to introduce the idea of Kewaunee and Ahnapee Rivers Watershed Project in Kewaunee County. In September,

2015, the Kewaunee County Land and Water Conservation Department (LWCD) and the Natural Resources Conservation Service (NRCS) hosted a public forum to explain federal funding for the Kewaunee and Ahnapee Rivers Watersheds Project based on attendee ranking of conservation priorities.

Over 106 people attend the forum, of which 90 were Kewaunee County residents, including 10 Lincoln Township residents.



<sup>1</sup>Crescent Beach Management and Monitoring of Non-Point Pollutants in Ahnapee River Watershed Dr. Kimberly M. Busse, University of Wisconsin Oshkosh, January, 2014.

Groundwater contamination is considered serious enough that in January, 2015, the Kewaunee County Board of Supervisors Chairperson declared groundwater the county’s number one priority, and established the Groundwater Task Force.

In March, 2015, Congressman Reid Ribble convened a “Phosphorus Summit” based on the confirmation of the existence of a dead zone in the bay of Green Bay. Researchers determined that more than 45% of the phosphorus was emanating from agricultural sources.

In May, 2015, Lincoln Township leaders were invited to participate in a round table with Congressman Ribble, Conservationists, and officials from other counties.

In April, 2015, Lincoln Township residents approved the Kewaunee County Public Health and Groundwater Protection Ordinance by a margin of four to one.

In 2016, even Wisconsin Governor Scott Walker paid the county a visit and discussed these issues with select local decision makers.

State Assembly Representatives Joel Kitchens and Scott Krug, at the request of Friends of Crescent Beach, sought funding to monitor total phosphorus and total solids in the Ahnapee River in May, 2016. Kitchens stated: “We want clean and safe resources in our area. This is especially true for the Ahnapee River and its largest tributary, Silver Creek....”

The Kewaunee County Land and Water Conservation Department has been taking samples of county wells since 2004. In the intervening years, 29% of wells tested

1	Water Quality Degradation - Excess Nutrients in Surface & Groundwaters
2	Water Quality Degradation - Excess pathogens and chemicals from manure, bio-solids or compost applications
3	Water Quality Degradation - Excessive Sediment in Surface Waters
4	Soil Erosion - Concentrated Flow
5	Soil Erosion - Sheet, Rill & Wind
6	Inadequate Habitat for Fish & Wildlife - Habitat Degradation
7	Soil Quality Degradation - Compaction
8	Soil Quality Degradation - Organic Matter Depletion
9	Air Quality - Objectional Odors
10	Excess Water - Flooding, Ponding & Seasonal High Water Table

**NRCS Stakeholders and Technical Assistance Group (TAG) Resource Ranking**

**Table 8: Depth of Bedrock by Percent of Land Area In Kewaunee County Townships**

Township	5' or Less	20' or Less
T. Ahnapee	<1%	7%
T. Carlton	<1%	0%
T. Casco	5%	15%
T. Franklin	0%	2%
T. Lincoln	15%	31%
T. Luxemburg	7%	31%
T. Montpelier	<1%	11%
T. Pierce	0%	0%
T. Red River	22%	49%
T. West Kewaunee	<1%	1%
Kewaunee County	5%	15%

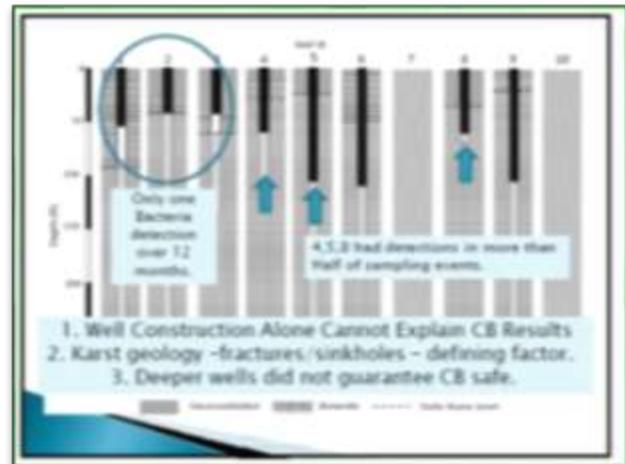
Source: Devina Boush, Kewaunee County Conservationist, KCLWCD

have been shown to be contaminated with either nitrate or bacteria or both. In Lincoln Township, the contamination rate has been as high as 41.3%.<sup>2</sup>

Lincoln Township has undertaken several initiatives to understand the scope of the problem. These include:

1. Monthly well testing of ten wells for one year by the Kewaunee County Land and Water Conservation Department and UW-Stevens Point Center for Watershed Science and Education. (see below)
2. A groundwater mapping project by the Wisconsin Geological and Natural History Survey that will include a depth to bedrock evaluation, water table mapping, groundwater recharge mapping, groundwater contaminant susceptibility, and a karst landform map featuring closed depressions.
3. A commitment to test 25 wells biannually for ten years.

The first initiative, completed in 2014, was a one-year well testing program carried out by Davina Bonness of the KCLWCD and Kevin Masarik of UWSP. The final report, *Investigating Inter-annual Variability of Well Water Quality in Lincoln Township*, was presented to the public in June, 2014. For the ten wells investigated, an average of 0.8% (eight tenths of one percent) of the nitrogen in the wells was from the septic systems with the remainder from agricultural sources. Some of Bonness and Masarik's conclusions include:



- “The degree to which nutrient management has been implemented around these wells (89% of cropland acres) is extensive...The extent to which nutrient management plans are being followed could not be verified; unless information exists to show otherwise, we assume that they are an accurate representation of what is taking place on the landscape. Therefore, we conclude that the elevated concentrations of nitrate in these ten wells are not the result of gross mismanagement or negligence.”
- **“If the goal is significant long-term reduction of nitrate concentrations in groundwater of Lincoln Township, it would likely require active efforts to reduce nitrogen inputs (e.g. less nutrient intensive cropping systems, strategic reduction in**

<sup>2</sup>UWSP Center for Watershed Science and Education, NRCS presentation to Kewaunee County, September 3, 2015.



acreage, etc.) beyond the current source, rate, and timing risk management strategies outlined in existing nutrient management plans.”

The second initiative, a groundwater mapping project by the Wisconsin Geological and Natural History Survey to be completed in September, 2017, will help the township identify closed depressions (groundwater infiltration hotspots), sensitive areas on the landscape, areas of concern that need special protection, and the flow of groundwater in the aquifer. It might also help the town pinpoint potential sources of contamination that can be addressed through zoning and/or protective ordinances.



The third initiative is a long term commitment to develop a baseline for groundwater quality so that we know what, if any, impact our efforts are making to remediate the chronic groundwater contamination situation by eliminating the sources.

There has been much disagreement about the exact percentage of contaminated wells. One side has argued that those who test their wells voluntarily are a “self-selected group with an agenda”. According to the State of Wisconsin Legislative Audit Bureau, “voluntary testing of wells coordinated by the Kewaunee County’s Land and Water Conservation Department between 2004 and 2015 found that 180 (29%) of the 620 wells tested had unsafe levels of nitrates, bacteria, or both”. The report goes on to note, however, that “a random sample of 320 wells in Kewaunee County found that 110 (34.4%) were contaminated with bacteria or unsafe levels of nitrates.” The random testing found a higher

percentage of contaminated wells than previously reported by the “self-selected group with an agenda.”

**A random sample of 320 wells in Kewaunee County found that 110 (34.4 percent) were contaminated with bacteria or unsafe levels of nitrates.**

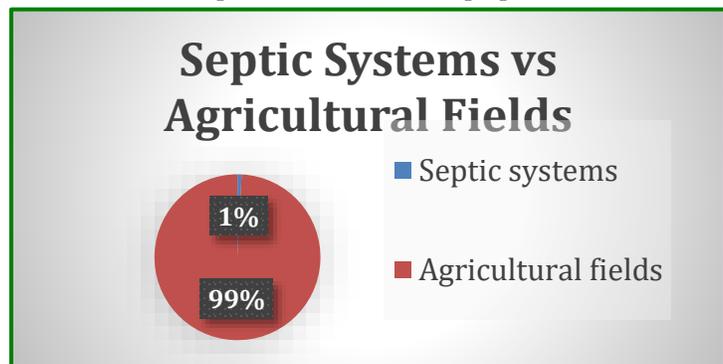
–State of Wisconsin Legislative Audit Bureau, June, 2016<sup>3</sup>



While the population of Kewaunee County is around 20,500 (20,505 in 2013), the number of Cattle (milking and dry cows, heifers, and calves) in the county exceeded 97,000 animals in 2015<sup>4</sup>. The amount of excrement from one dairy cow equals that of 18 people. Given this, the human-equivalent population in cattle alone in Kewaunee County is nearly 1,746,000 people, or 85 times the human population of the county. Common sense makes it clear that the bulk of the groundwater and surface water contamination is coming from animal manure and not human waste.

Lincoln Township has a population of 943 (2015). The town’s three CAFOs alone have a combined animal population (2015) of 13,773<sup>5</sup>. This equates to a human population of 199,137 people<sup>6</sup>.

The source of our groundwater contamination is a divisive issue. Many CAFO owners contend that faulty septic systems are the primary culprit, even though the Bonness and Masarik study indicated that only about 0.8% of the contamination in tested wells is from septic systems.<sup>7 8</sup>



This disagreement is proving to be fertile ground for research by university and agency personnel who are now working to determine the whether the source of the groundwater contamination is human or bovine.

<sup>3</sup> *Water Permitting and Enforcement*, Department of Natural Resources, State of Wisconsin Legislative Audit Bureau, June, 2016

<sup>4</sup> NASS, USDA Statistics by State: All Cattle And Calves for 2015 and 2016.

<sup>5</sup> According to the Kewaunee County Land and Water Conservation Department from 2015 Nutrient Management Plans.

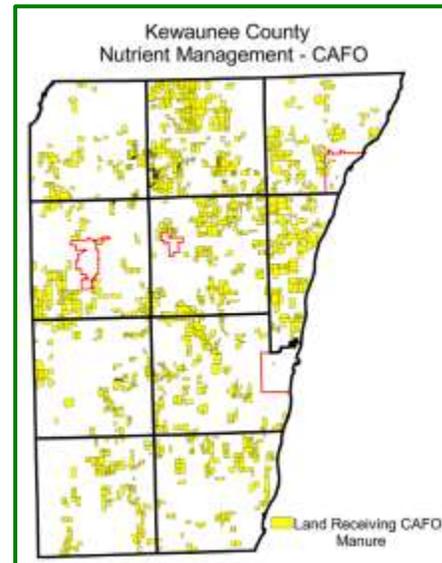
<sup>6</sup> This number is weighted based on the age/size of the animals: milking dairy cows, heifers, and calves.

<sup>7</sup> From *Utilities and Community Facilities*

<sup>8</sup> This is corroborated by *Nitrate in Groundwater: A Continuing Issue for Wisconsin Citizens*, by the Nutrient Management Subcommittee of the Non-Point Source Pollution Abatement Program Redesign; March, 1999.

In the spring of 2016, a definitive and recent finding came as a result of the USDA's testing (funded by the DNR), where salmonella and rotavirus were found and the source was confirmed as bovine by Dr. Mark Borchardt, lead researcher on the project.

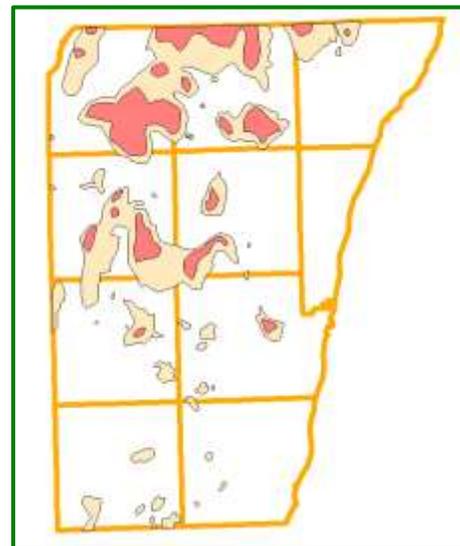
This was followed by an in depth study to assess the groundwater quality in Kewaunee County led by Drs. Mark Borchardt (USDA), Maureen Muldoon (UW-O), Randy Hunt (USGS) along with a host of others.<sup>9</sup> The results indicated that the groundwater was contaminated with both bovine as well as human sources. A total of 621 households participated in the randomized study. Approximately 700,000,000 gallons of cattle manure are spread in Kewaunee County annually, while septics contribute about 200,000,000 gallons of effluent annually. (Of this, about 60% is graywater and 40% is blackwater.) The results of the study revealed contamination spikes in the spring and fall due to timing of manure applications, whereas septics contributed a lower level "baseline" of contamination year round.



Courtesy Dr. Mark Borchardt

"You don't have to be a scientist to know where the pollution is coming from"  
Dr. Mark Borchardt, June 7, 2017

Dr. Maureen Muldoon explained that groundwater typically flows quite slowly, but in Kewaunee County it can flow at an astonishing "tens to hundreds of feet per day." As a result, the groundwater quality can change in a matter of hours. Dr. Mark Borchardt stated: "In your county, what you need to be concerned about is depth to bedrock, especially zero to five feet and five to 20 feet." The greater the depth of soil, the greater the protection from contamination.



"I cannot think of a hydro-geologically worse place than northeast Wisconsin to put a lot of cows,"  
Dr. Maureen Muldoon, June 7, 2017

Depth to Bedrock (Borchardt)

<sup>9</sup> Sources of Fecal Contamination in the Dolomite Aquifer in Northeastern Wisconsin, Mark Borchardt (USDA-Agricultural Research Service), Maureen Muldoon (UW-Oshkosh Department of Geology), and Randy Hunt (USGS Wisconsin Water Science Center), 2017.

In August, 2015, The DNR established four work groups to develop recommendations that could be used to create processes, rules and standards to improve the groundwater and surface water quality in Kewaunee County. The recommendations have yet to be implemented. However, the DNR has stated that all recommendations will be voluntary.

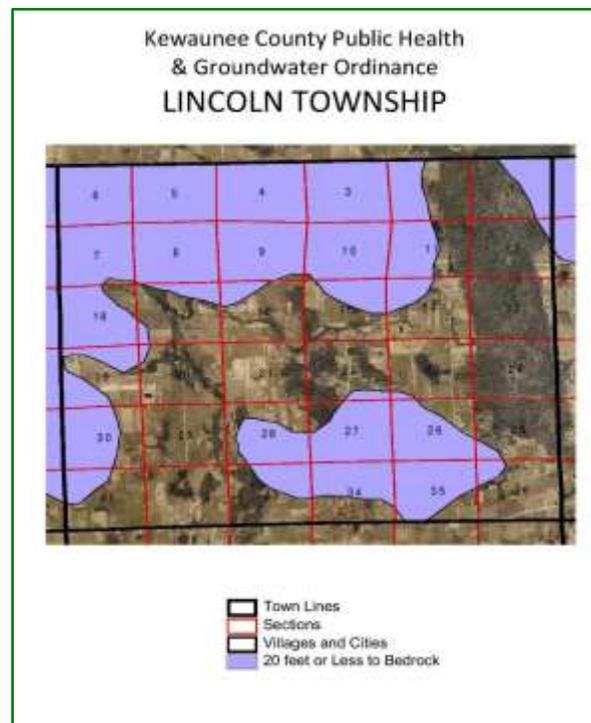
Arguably, the most important issues were around management practices for manure application on sensitive areas. Unfortunately, not all recommendations were discussed and were not able to be included in the final report. In addition, the DNR has insisted that all recommendations are voluntary. To quote Andy Wallander, the former Kewaunee County Conservationist, **“We have been using voluntary regulations since 1972 and they have not served us well.”**

In May, 2016, the Legislative Audit Bureau found that the DNR failed to follow their own policies on enforcement more than 94% of the time over the last decade. This harkens back to Administrative Judge Boldt’s opinion on a case involving a WPDES permit in October, 2014 in Lincoln Township: **“The proliferation of contaminated wells represents a massive failure to protect groundwater in the Town of Lincoln.”**

In a response to the Legislative Audit Bureau’s critical evaluation of the DNR’s oversight, DNR Secretary Cathy Stepp responded that “...the department has already begun work on several of the recommendations...”

Highlighted was “A number of recommendations focused on the need to identify sensitive areas and to implement best management practices in those areas, such as restricting or reducing manure spreading and providing setbacks to conduits to groundwater.”<sup>10</sup>

In order to make a tangible difference in our groundwater and surface waters, the township will need to make a number of tangible steps that go beyond best management practices and “voluntary”. To quote Wallander again, **“If you don’t change what you are doing, nothing is going to improve.”**



<sup>10</sup> Letter from Cathy Stepp, Secretary, DNR, to Joe Chrisman, State Auditor, Legislative Audit Bureau, June 2, 2016; *Water Permitting and Enforcement*, Department of Natural Resources, State of Wisconsin Legislative Audit Bureau

In addition to implementing the “recommendations” from the WDNR Sensitive Areas Workgroup final report in June, 2016<sup>11</sup>, the township should consider implementing the recommendations from the Final Report of the Northeast Wisconsin Karst Task Force, published in February, 2007. In particular, the township should consider designating areas of extreme, high, and significant vulnerability to groundwater contamination (Table 1 of the Karst Task Force Final Report), and subsequent recommendations for these areas in the report. Per the Karst Final Report: “The recommendations are primarily intended to minimize groundwater contamination from pathogens and ‘brown water’, and secondarily intended to minimize groundwater contamination from nitrate.”<sup>12</sup>

**Table 1: Level of protection recommended based on vulnerability ranking and site specific criteria. Criteria are site specific, and multiple criteria may occur in the same agricultural field.<sup>13</sup>**

Level of protection required	Criteria	Relative vulnerability to contamination
1	Less than 5 feet (60 inches) to carbonate bedrock, <i>and/or</i> closed depressions or any drainage areas that contribute water to sinkholes/bedrock openings	Extreme
2	5-15 feet to carbonate bedrock	High
3	>15-50 feet to carbonate bedrock	Significant
4	Greater than 50 feet to carbonate bedrock	Moderate

### Mixed-Messages on Setbacks

As part of the WDNR Sensitive Areas Workgroup process, William Schuster, Land and Water Conservationist for Door County, made the compelling case that, since the required setback to private potable and public non-community water supply wells is 250 feet, that the required setback from “**all other direct conduits to groundwater (e.g. sink holes,, creviced bedrock, critical closed depressions, and fracture traces)**” should be **increased from the current 100 feet to 250 feet**. Schuster argued that the 250 foot setback to wells provides greater protection even though those conduits (wells) are cased

<sup>11</sup> Groundwater Collaboration Workgroup Final Report, June, 2016

<sup>12</sup> Final Report of the Northeast Wisconsin Karst Task Force, February, 2007

<sup>13</sup> Final Report of the Northeast Wisconsin Karst Task Force, February, 2007

and sealed. Given this, the 100 foot setback for other conduits not only provides for lesser protection distance-wise, but these are direct conduits to groundwater which are uncased and unsealed. Schuster concluded that **“if the agricultural industry continues to apply animal waste near open conduits, the public will continue to experience animal waste in their drinking water.”**

In addition, Lincoln Township should make a concerted effort to assist the Kewaunee County Land and Water Conservation Department identify and locate abandoned wells, wells in agricultural fields, and wells with the well head below grade. The town might consider seeking grants for cost sharing the proper abandonment or upgrading of such wells since it is in the best interest of all of the town residents, all of who rely on wells as their water source, to do so.

## **Chapter 5:**

## Land Use

Land Use is the defining element of a comprehensive plan. Its main purpose is to provide a framework for decision makers to guide growth and development. Wisconsin’s Comprehensive Planning Law requires that land use decisions reached via a zoning ordinance, subdivision ordinance, or official map be consistent with the comprehensive plan (Chapter 66.1001(3), Wis. Stats.). Implementation of the comprehensive plan will result from the incremental decisions made by elected and appointed officials during the review and approval of zoning changes, certified survey maps, subdivision plats, site plans, and the like. It will guide the Town Board, Plan Commission, property owners, and developers through the development process. Successful implementation will require a sustained effort by the public and private sectors to utilize this chapter, and the Future Land Use map contained within it, as the essential decision-making guide for land use in the Town of Lincoln.

### Land Use Vision

*To encourage well-planned development designed in harmony with the natural landscape so as to ensure a safe, beautiful, and thriving community for future generations.*

### Inventory of Current Land Uses

The land use categories and acreages presented in Table 9 result from the Current Land Use map appearing on the following page. The map was developed utilizing GIS data provided by Kewaunee County, Bay Lakes Regional Plan Commission, and WisDOT. The purpose of the map is to provide a ‘snap shot’ of the Town as it exists today.

Category	Total Acreage	Percent of Total Acreage
Agricultural of all uses	14883.21	65.05%
Commercial	6.03	0.03%
Communications & Utilities	28.44	0.12%
Governmental & Institutional	10.07	0.04%
Industrial	1.48	0.01%
Outdoor Recreation	18.03	0.08%
Residential	367.63	1.61%
Transportation	222.98	0.97%
Natural Areas	7340.85	32.09%
Total	22878.22	100.00%

Source: Town of Lincoln Current Land Use map.

### Primary Land Use Tools

#### Zoning Ordinance

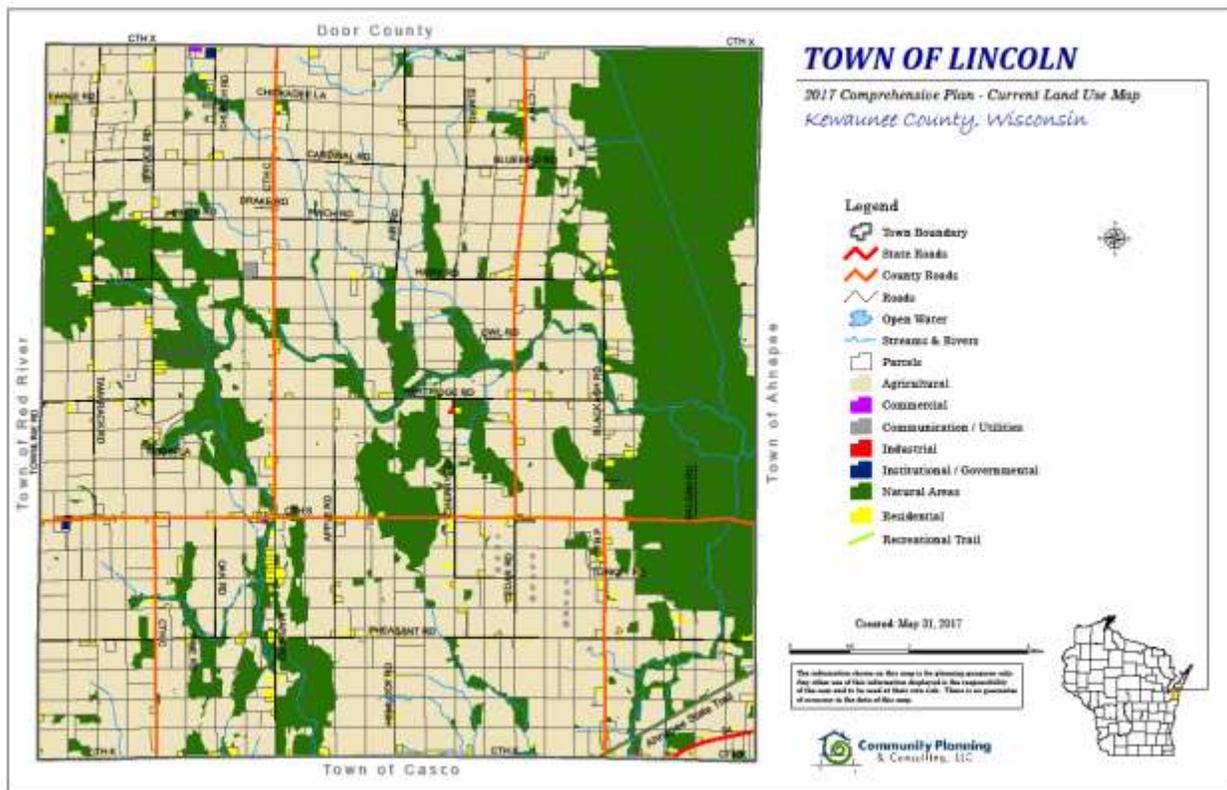
The purpose of a zoning ordinance is to identify the permitted and conditional uses allowed on parcel of land within designated zoning districts. Zoning ordinances may also regulate lot size, road frontage, density, and the location, height, and size of structures, among others. The Town of Lincoln administers and enforces its own zoning ordinance.

#### Subdivision Ordinance

Unlike zoning, which regulates the use of land, subdivision regulations govern the manner in which land transitions from one use to another (typically from agricultural or open space to residential). A

subdivision ordinance provides the procedures and standards for dividing a large parcel into smaller parcels for sale or development. Subdivision regulations require that developers meet certain conditions in order to record a certified survey map or plat. They provide an effective tool through which local government can implement a comprehensive plan. Subdivision regulations in Lincoln are currently administered and enforced by Kewaunee County.

### Town of Lincoln Current Land Use Map



### **Community Design Considerations**

Community design is an important component of planning and plays a significant role in determining quality of life in a community. Elements of community design may include the culture and history of a community along with architectural standards, open space and natural resource protection, transportation and access, and recreation, among others. Ordinances provide the primary means by which local governments implement community design requirements.

### Property Rights

The issue of private property rights versus community need underlies every comprehensive planning effort. Property rights are ingrained in American jurisprudence. Those rights have been

respected, to the greatest extent feasible, throughout the planning effort. This chapter describes and illustrates proposed development patterns for the Town of Lincoln. It will be used by local officials, landowners, and developers (among others) to make informed land use and development decisions. Should a landowner disagree with the Future Land Use map, or any other aspect of this plan, he/she has the right to petition the Town Board for an amendment to the document. All amendments will occur through a public process, defined by state law, and will include a public hearing. The process of amending the comprehensive plan is described in the Implementation section beginning in Chapter 6.

### Community Character

Character is defined differently for each community but includes a blend of natural, built, visual, and cultural characteristics. It represents the sum of the attributes and assets that make a community unique, and that establish a sense of place for its residents. For the Town of Lincoln, community character means country living and the land uses typical of a rural community: low impact agriculture, open space, and natural resources, with limited development.

There are increasing concerns among citizens regarding the impact that the changing face of agricultural operations are having on their quality of life. One only needs to read the frequent news reports to realize the costs, both economic and social, of these operations are very much paid by the community. As such, all future land use planning must take into account those concerns to protect taxpayers' property rights, surface and ground water quality and quantity, and traffic safety, and to minimize noise, air, and light pollution.

### Statement provided by El-Na Farms regarding Community Character

The strewed misconceptions of agricultural operations have become an increasing concern among many farmers in the Town of Lincoln. The “frequent” news reports mentioned above neglect to highlight the economic and social costs that farmers are facing as well. Rather than working towards improving and refining current agricultural practices, farmers are forced to spend their time confronting and defending themselves against such increasingly common accusations and negative connotations. Just as other town residents, farmers face safety and property rights issues. We, too, are equally concerned about ground water quality and are currently working to improve such matters, starting with the formation of Peninsula Pride. We, as farmers, acknowledge the concerns of the citizens of Lincoln; however, we then, as a community, need to work *together* to maintain each individual’s quality of living. Rather than remain distracted by this ongoing dispute, we need to share suggestions, come up with agreeable solutions, and work towards a commonality.

### Recreational Opportunities

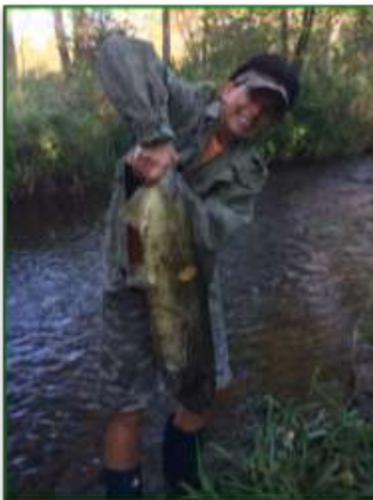
Hunting is the primary, but not only, recreational opportunity in Lincoln Township. Due to the availability of private wood lots throughout the township and the Black Ash Swamp, Wisconsin's largest hardwood swamp, located on the eastern edge of the township, deer and turkey are the primary, and abundant, targets. Small game (rabbit, squirrel, pheasant and partridge) hunters report decreasing numbers due in part to the removal of tree lines which small game call home. Raccoon is both hunted and trapped.

In the winter, private landowners have made acreage available to the Friends of The Ahnapee who manage groomed snowmobile trails across the township. The trails connect with the Ahnapee State Trail, in the Southeast corner of the township, which is a primary throughway which attracts and connects snow sport enthusiasts from and to both Brown and Door County. The Ahnapee Trail is also used by cross country skiing and snowshoe enthusiasts.



As the snow disappears, cyclists, hikers, runners and birders also use the Ahnapee Trail as well as the many beautiful and quiet town roads and riparian areas.

Historically, the Town's creeks have been home to suckers, brook trout and pickerel although their number have dwindled in the last couple of decades. However, the removal of the Bruemmerville Dam in 2012 has resulted in the migration of spawning salmon up Silver Creek, attracting anglers in search of the late season fish. Water levels in the fall of 2013 brought a large number of the large fish as far upstream as County P. The resulting and increasing number of fingerlings has also caught the attention of the bald eagles who are now found throughout the year searching the town's open waters for prey as well as carrion in the fields.



Birding is also a growing recreational opportunity in the township. Besides the bald eagles, bob-o-links are returning to some of the areas where residents have installed native prairies and suitable habitats. The Northern harrier and the snowy owl are winter residents.

Notable by their absence, are recreational opportunities for children. There are no playgrounds, no ball or soccer fields in the town.

## Environmental Corridors

Environmental corridors (also known as “green infrastructure”) refer to an interconnected green space network of natural areas and features, public lands, and other open spaces that provide natural resource value.

Environmental corridor planning is a process that promotes a systematic and strategic approach to land conservation and encourages land-use planning and practices that are good for both nature and people. It provides a framework to guide future growth, land development, and land conservation decisions that accommodate population growth and protect community and natural resources assets.

### Benefits of Protecting Environmental Corridors

#### Ecological

- Protects and enhances the quality of waterways and riparian areas
- Recharges groundwater aquifers
- Filters pollutants from air, water, and soil
- Provides connections to maintain biodiversity
- Maintains cool water streams through shading
- Reduces greenhouse emissions and concentrations through carbon storage and sequestration, thereby limiting the effects of climate change
- Buffers developed areas from floodwaters, saving lives and property



#### Economic

- Provides improved quality of life, which encourages corporate relocation to an area
- Increases tourism and new business generation, such as bed and breakfasts, rental facilities, restaurants, and art galleries
- Increases property values and overall community revenue because properties near and adjacent to environmental corridors often increase in value
- Attracts environmentally sensitive development, and businesses, which has great appeal for many homeowners

## Social

- Expands recreational opportunities
- Improves human health and helps ease mental fatigue
- Enhances local residents' sense of connection with nature and to each other
- Provides access to large green spaces for urban residents and visitors

Environmental corridors have been defined for all counties within the Bay-Lake region for use in local planning efforts.<sup>1</sup>

The *Coastal Resource Identification for Kewaunee County Using Environmental Corridors* report (2001, Bay-Lake Regional Planning Commission) defines the environmental corridors of Kewaunee County with the original standard Bay-Lake Regional Planning Commission definition. Features of the Kewaunee County environmental corridors include:

- Wetlands with 25-foot buffer
- Navigable waters with 75-foot setback
- 100-year floodplains
- Areas of steep slope (12 percent or greater)

Other features that are part of the Kewaunee County environmental corridor definition include:

- Designated Scientific and Natural Areas
- Unique and isolated woodland areas
- Scenic viewsheds
- Historic and archaeological sites
- Unique geology
- Wetland mitigation sites
- Unique wildlife habitats
- Parks and recreations areas
- Other locally identified features



Although this definition of environmental corridors was never officially adopted by Kewaunee County, it has been widely used by local communities in their planning processes.<sup>2</sup>

<sup>1</sup> From *Environmental Corridors—Kewaunee County*, Bay Lakes Regional Plan Commission

<sup>2</sup> Bay-Lake Regional Planning Commission, *Environmental Corridors of the Bay-Lake Region*, June 2012, Pages 11-14.

Unabated pollution of the waters of this state continues to arouse widespread public concern. It continues to endanger public health; to threaten fish and aquatic life, scenic and ecological values; and to limit the domestic, municipal, recreational, industrial, agricultural and other uses of water. It is the policy of this state to restore and maintain the chemical, physical, and biological integrity of its waters to protect public health, safeguard fish and aquatic life and scenic and ecological values, and to enhance the domestic, municipal, recreational, industrial, agricultural, and other uses of water.

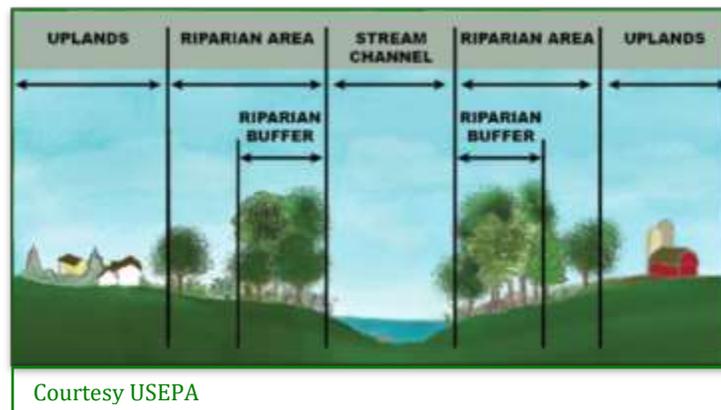
Wisconsin State Statutes Chapter 283.001(1)

### Riparian Buffers<sup>3</sup>

Riparian buffers are zones adjacent to water bodies such as lakes, rivers, and wetlands that protect water quality and wildlife, including both aquatic and terrestrial habitat. These zones minimize the impacts of human activities on the landscape and contribute to recreation, aesthetics, and quality of life.

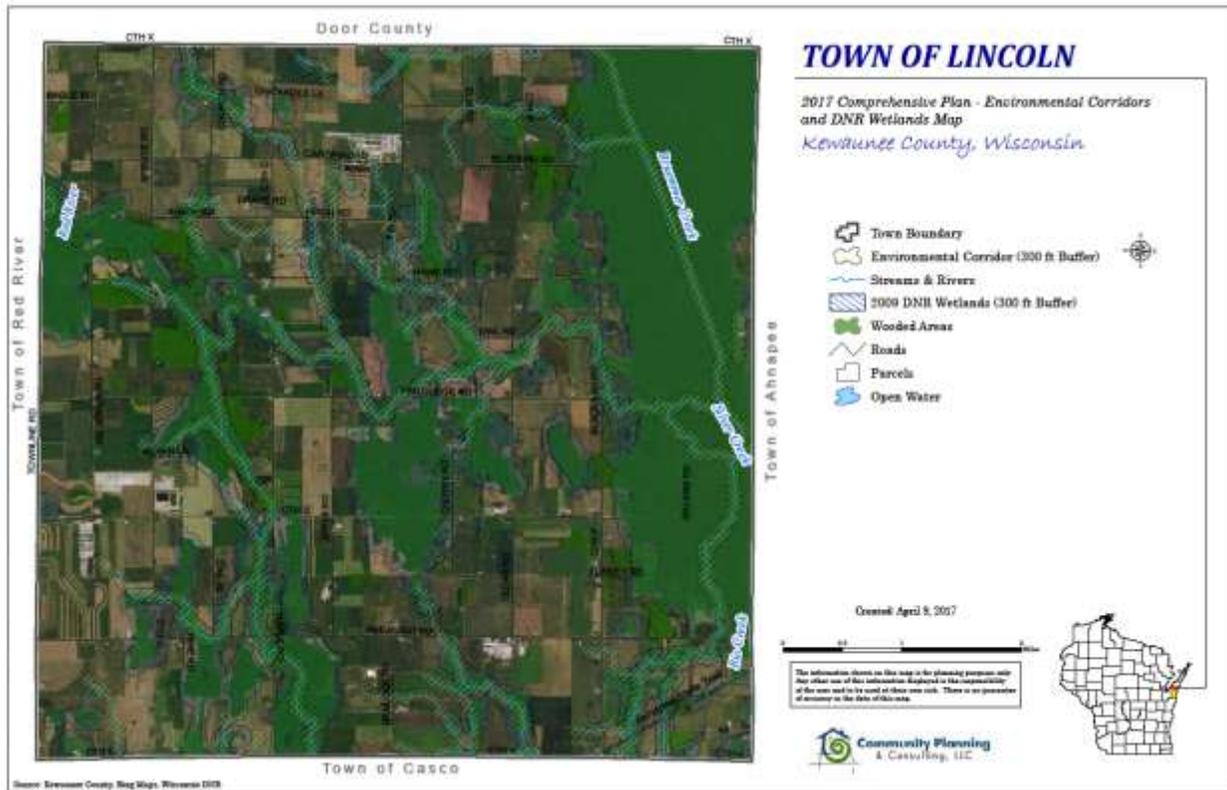
Buffers can include a range of complex vegetation structure, soils, food sources, cover, and water features that offer a variety of habitats contributing to diversity and abundance of wildlife such as mammals, frogs, amphibians, insects, and birds. Buffers can consist of a variety of canopy layers and cover types including: ephemeral (temporary-wet for only part of year) wetlands, ponds, and spring pools; shallow and deep marshes; wetland meadows; wetland mixed forests; grasslands; forests; and prairies. Riparian zones are areas of transition between aquatic and terrestrial ecosystems that provide numerous benefits to wildlife and people including pollution reduction and recreation. **Riparian buffers are widely considered to be the single most effective protection for surface water resources.**

Based on what is understood and accepted knowledge about environmental corridors and riparian buffers, Lincoln Township is adopting the following Environmental Corridors and DNR Wetlands map with riparian buffers delineated.



<sup>3</sup> Excerpted from Managing the Water's Edge: Making Natural Connections, USEPA.

Town of Lincoln Environmental Corridors and DNR Wetlands Map



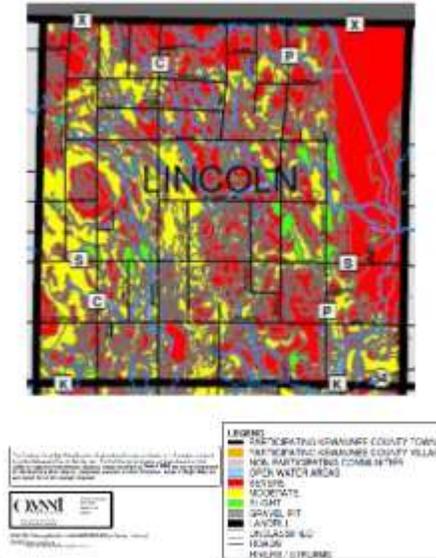
**Groundwater Protection Necessitates Demarcation of Sensitive Areas**

While it is probably not appropriate to expect zero nitrates or bacteria contamination in the groundwater, it is possible to work towards reducing the frequency and extent of nitrate and bacteria contamination.<sup>4</sup> At the December 15, 2015 WDNR Sensitive Areas and Management Practices Workgroup meeting, Kevin Masarik, UW-Stevens Point Groundwater Education Specialist at the Center for Watershed Science and Education, stated that “spreading liquid manure on less than 36 inches of soil is probably a bad idea.” Russell Rasmussen, WDNR Water Division Administrator, concurred and added that “beyond 36 inches, soil can attenuate pathogens.”

<sup>4</sup> WDNR Sensitive Areas and Management Practices Workgroup notes for December 15, 2015.

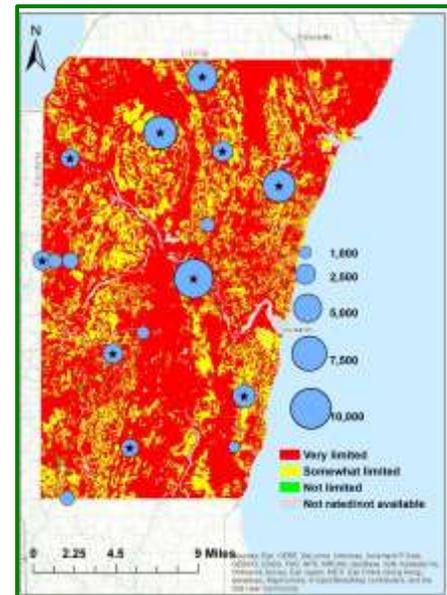
The Sanitary Suitability Map for Lincoln Township cropped from the Kewaunee County Map indicates that nearly the entire township is unsuitable for conventional septic systems due to shallow soils, high water tables, and karst bedrock. These are areas that the 2007 Final Karst Task Force Report would categorize as having an extremely high vulnerability and high vulnerability to groundwater contamination. Logic dictates that if these highly sensitive soils are unsuitable for septic systems, then they are also unsuitable for spreading of liquid manure and agricultural wastewater from lagoons, which are essentially 95+% water.

**SANITARY SUITABILITY  
KEWAUNEE COUNTY COMMUNITIES**

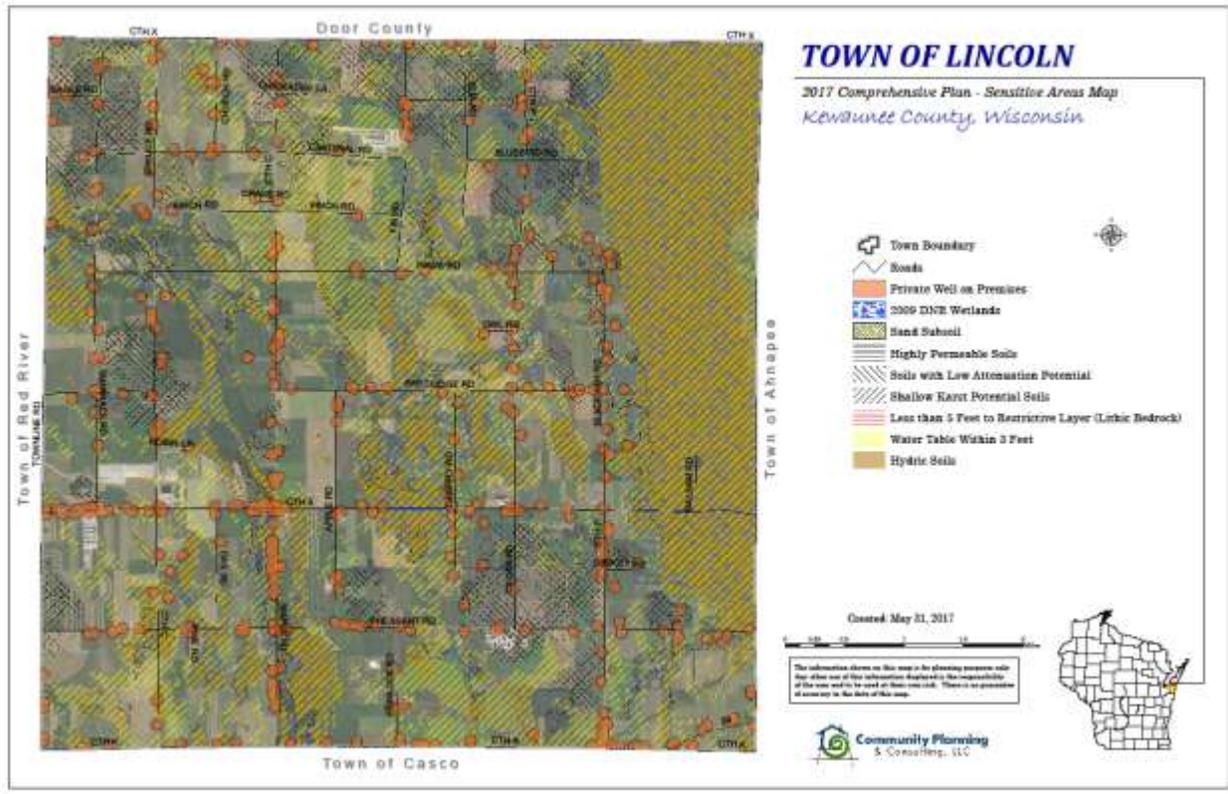


Indeed, the October, 2016, Wisconsin Energy Initiative Peer Review of Project Phoenix came to a similar conclusion for the suitability of land for manure and food processing waste application in their map (below) of Kewaunee County. The evaluation was based on the soil survey geographic database for Kewaunee County and software developed by the NRCS.

Based on the work done by the Karst Task Force, the WDNR Sensitive Areas and Management Practices Workgroup, the Wisconsin Geological and Natural History Survey, and the Kewaunee County Land Information Office, Lincoln Township has developed a Sensitive Areas map. These areas are considered sensitive to all types of development and land use. The point of the Sensitive Areas Map is to highlight areas that are sensitive to groundwater recharge and contamination. Since all residents and businesses in Lincoln Township are dependent upon wells for their water needs, contamination of the township's watershed is a critical consideration in any current and future planning and development activities. Lincoln Township is adopting the Sensitive Areas Map, which should be consulted when making zoning or permitting decisions in all districts.



Town of Lincoln Sensitive Areas Map



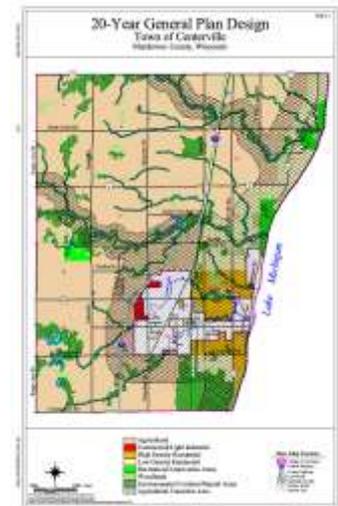
**Agricultural Transition Areas**

Some townships have taken the initiative to transition all or part of their communities out of one land use and into another. For example, the Town of DuPont in Waupaca County has retained some areas for agriculture and resource protection, some as agriculture enterprise, but sweepingly designated the bulk of their land base as an agricultural transition area.

The Town of Centerville in Manitowoc County has taken the initiative to designate areas around population centers, environmental corridors and natural areas, and critical watershed areas as agricultural transition areas.



According to Brandon Robinson at Bay Lakes Regional Plan Commission, the Town of Centerville had an Agricultural Transition Area that was intended to protect from areas considered environmentally sensitive. This was an overlay to the future land use plan illustrating sensitive areas. “It was intended that farm operators be aware of these sensitive areas when conducting agricultural activities, not necessarily stopping these activities from occurring. The [Centerville] town’s overall future vision of those areas was still agricultural.”<sup>5</sup>



We were advised that the township should consider designating those areas with “extremely high vulnerability” and “high vulnerability” to groundwater contamination, plus environmental corridors, natural and cultural areas, and areas likely for residential development as Agricultural Transition and/or Sensitive Areas. Such a change does not impact current land use but helps direct future land use.

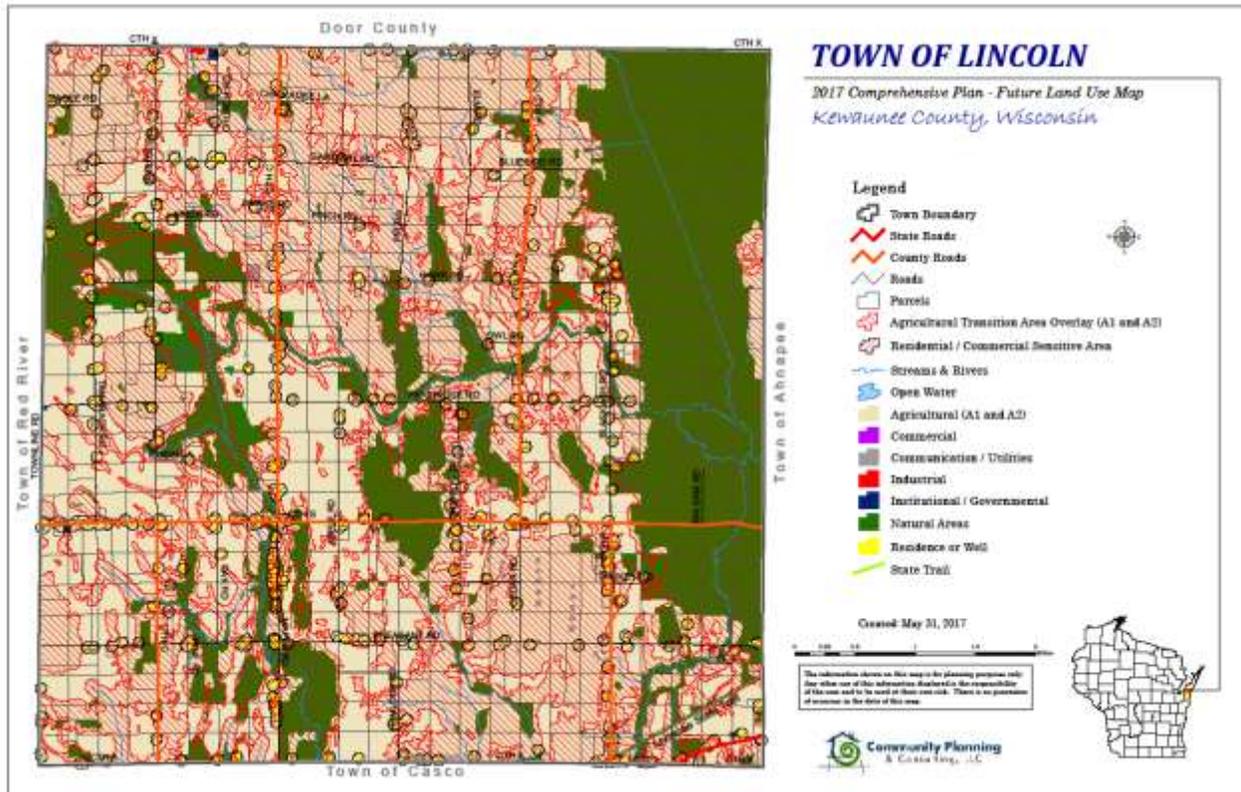
### Future Land Use Map

The future land use map reflects the visions, goals, objectives, and policies presented throughout the comprehensive plan. It is the principal tool for guiding development. By statute, decisions related to land use and development must be made in a manner consistent with the map. Landowners and developers will consult the plan when making development decisions, and should be confident that an application for development that is consistent with the comprehensive plan will be approved. However, the comprehensive plan is not a static document. It must evolve to reflect current conditions. If not regularly reviewed and amended, it will become less effective over time. Applications for rezoning and development that are inconsistent with the plan must be given due consideration, not rejected out of hand. In some situations, it may be desirable to amend the plan (and maps) to accommodate a compatible, but previously unplanned use.

Changes to the plan (including its maps) must be considered in the context of all nine required plan elements, and reflect the visions, goals, objectives, and policies expressed within the document. The process of amending a plan is governed by the same rules as during its adoption. For additional information regarding plan amendments please refer to the Implementation section beginning in Chapter 6.

<sup>5</sup> Correspondence with Brandon Robinson, BLRPC, April 7, 2016.

Town of Lincoln Future Land Use Areas Map



**Description of Future Land Uses**

There are currently only two parcels zoned I-1 and no parcels zoned I-2 in Lincoln Township. Given the nature of the township and make up of its population, it is inconsistent with the character of the town for there to be additional Industrial Districts rezoned in Lincoln Township.

A considerable number of parcels in the township are located in areas designated Sensitive Areas. As such, the Town Board will encourage practices that will help protect these areas within the town’s watershed for all living in the community.

Due to the diligence of the Kewaunee County Zoning Department, groundwater contamination due to aging and potentially failing septic systems is well under control. There are apparently no industries or commercial facilities in the township proper that are contributing to the township’s groundwater contamination problem.

According to multiple sources, by far the largest contributor to the nitrate and bacteria contamination of wells appears to be the use of liquid manure and chemical fertilizers in areas with shallow soils over bedrock, areas with karst bedrock, sinkholes, and closed depressions, areas with high water tables or saturated soils, and the discharge of tile lines into streams, small creeks, and wetlands throughout the Township.

Farming enterprises are reportedly abiding by current DNR, DATCP and NRCS requirements. Nutrient Management Plans are written for the purpose of regulating nutrients applied to fields and to minimize tolerable soil loss. While the NRCS must approve Nutrient Management Plans, sustainable agricultural practices indicate that maximizing nutrient application is not necessary to grow quality crops. Lower application rates of both manure and fertilizers translate into fewer leachable nutrients in the soil while still resulting in high crop yields.

It is apparent from the Future Land Use Map that most of Lincoln Township's agricultural land is tenuous at best relative to the suitability of the land to handle liquid manure and intensive applications of chemical fertilizers. As such, transitioning to more sustainable agricultural practices with a focus on the health of the soil, the groundwater, and the environment is apparently the only way that the township will ever remediate its currently deteriorating groundwater situation and protect the town's watershed and quality of life for town residents.

**“Without more effective regulations for waste applications in Kewaunee County's shallow fractured bedrock areas, I believe the quality of the County's groundwater resource will continue to be increasingly at risk, growing to be a more serious problem as time goes on. It's time to do something.”**

**-Andy Wallander in his August 20, 2013 report to the Kewaunee County Board of Supervisors**

## Intergovernmental Cooperation

Intergovernmental cooperation may be defined as any arrangement through which two or more municipalities communicate visions and coordinate plans, policies, and programs to address and resolve issues of mutual interest. It can include the sharing of information, facilities, and equipment or involve entering into formal intergovernmental agreements.<sup>6</sup>

<sup>6</sup> Excerpted from Guide to Preparing the Intergovernmental Element of a Comprehensive Plan, Wisconsin Department of Administration, 2002.

The purpose of the intergovernmental cooperation chapter of the comprehensive plan is to describe current intergovernmental agreements, explore opportunities for future collaboration, and identify potential areas of conflict between the Town and its governmental neighbors.

### Intergovernmental Vision

*The Town of Lincoln will continue to work with its municipal neighbors, Kewaunee County, and the State of Wisconsin to pursue opportunities for cooperation and collaboration that lead to improved services and reduced costs for its residents, land owners, and business owners.*

### Current Intergovernmental Relationships

As of June 2016, the Town of Lincoln is party to the following intergovernmental agreements:

- 1<sup>st</sup> Responders for emergency medical services
- Algoma Fire and Ambulance
- Luxemburg Fire and Ambulance
- Wisconsin Geological and Natural History Survey for groundwater mapping
- Kewaunee County Land Information Office for financial support and information pertaining to groundwater mapping
- Kewaunee County Land and Water Conservation Department for well testing for periodic and ongoing well groundwater and well studies
- Water Action Volunteers (WAV), trained by WDNR Water Quality Specialists and UW-Extension to take water samples in the township for watershed and groundwater studies
- Wisconsin Towns Association
- Algoma School District Community Water Kiosk

## **Chapter 6:**

## Implementation

The implementation chapter is the “how to” portion of the plan. It describes the actions necessary to realize the visions presented in this document through the goals, objectives, and policies associated with each chapter. The information included herein represents the commitments the Town of Lincoln has made to achieve its desired future.

### Responsible Parties

The responsibility for implementing this plan will primarily lay with the Plan Commission, with the Town Board retaining the authority to approve recommended implementation actions. All Town Board and Plan Commission decisions pertaining to land use and development will be made in accordance with this document. The individuals and groups responsible for each action item are listed within the tables that follow.

### Measuring Progress

Milestone dates are provided for each policy task so that the Town may track progress and ensure that the plan is fully implemented. The Town Board and Plan Commission reviewed and approved the milestone dates presented in the tables that follow.

### Review and Update Process

The comprehensive plan may be revised at any time. However, state statutes require that a comprehensive plan be updated no less than once every ten years. The Town of Lincoln will adhere to the following comprehensive plan review timeline:

- Five-year Review – Within five years of plan adoption, the Plan Commission will undertake a review of the document to determine whether revisions are warranted. Any changes to the document trigger the same public participation requirements as adoption of the initial plan including, but not limited to: intergovernmental announcements, public participation plan, and a Class 1 public hearing. The Town Board shall approve the amended plan.
- Ten-year Update – Within ten years of plan adoption, the Planning & Zoning Commission will update the plan as required under Chapter 66.1001(2)(i), Wis. Stats., and consistent with all other requirements of Wisconsin’s Comprehensive Planning Law.

### Petitions for Plan Revision

Any interested party may petition the Plan Commission for a revision to the comprehensive plan. The process for revising the plan would entail:

- Submittal of a request to have a petition for revision placed on the agenda of the next regularly scheduled meeting of the Plan Commission.

- Plan Commission review of request and recommendation to the Town Board.
- Town Board approval of opening the comprehensive plan to potential revision.

Once the Town Board approves opening the plan for potential revision, the process must adhere to all plan development and adoption requirements as per Chapter 66.1001, Wis. Stats.

## Implementation Plan

### Ongoing

- Ensure that the comprehensive plan is incorporated into all development review and decision processes. Provide a copy of the adopted plan to each member of the Town Board and Plan Commission, the Zoning Administrator, and the Building Inspector.
- Update the zoning ordinance as necessary to meet the consistency requirement of Wisconsin's Comprehensive Planning Law and to comply with the requirements of Wisconsin's Farmland Preservation/Working Lands Program.
- Refer to Sensitive Areas Map when approving all future land use permits.
- Consider riparian buffers and wetland setbacks as a condition of approval for all future land use permits.

### 2017

- Consider removing I-1 and I-2 Districts from the Zoning Ordinance.
- Develop a comprehensive ground and surface water protection plan including, not necessarily limited to:
  - Coordinate with the Kewaunee County Land Water Conservation Department and WDNR to implement agricultural and residential best management practices to reduce nonpoint source water pollution.
  - Identify those areas where susceptibility to groundwater contamination is highest and develop plans to ensure that land use within these areas occurs in a manner consistent with protecting groundwater.
  - Work with WGNHS, KCLWCD, local universities and WDNR to conduct a comprehensive groundwater assessment study to determine impacts/solutions to regional groundwater quality and quantity issues.
  - Adopt a groundwater protection ordinance(s) or a groundwater protection overlay district within the zoning ordinance.
  - Add language to existing Town ordinances to strengthen protection of groundwater quality/quantity (especially with respect to high volume groundwater withdrawal of any kind).

- Work with Kewaunee County or BLRPC to create a regional map indicating areas susceptible to environmental contamination (based on soil type, depth to bedrock, slope, water table, recharge, etc.).
- Consider developing an information & education strategy aimed at providing residents with the tools to protect their potable water supply.
- Encourage or require the installation of groundwater test and observation wells to measure transmissivity and storativity for proposed development.

**2018**

- Adopt a Nuisance Ordinance
- Pursue opportunities to expand access to high-speed internet throughout the Town.
- Consider adopting an Implements of Husbandry Ordinance, consistent with Wisconsin Act 377.
- Update the zoning map to meet the consistency requirement of Wisconsin's Comprehensive Planning Law and to comply with the requirements of Wisconsin's Farmland Preservation/Working Lands Program.
- Consider local impact fees to help pay for new construction (town hall, parks and recreational areas, fire department buildings) consistent with Act 477.

**2019**

- Consider a Pedestrian and Bicycle Plan emphasizing connectivity with key local destination nodes, adjoining municipalities, and regional trail systems. Pursue grant funding to develop desired pedestrian and bicycle facilities.
- Consider a comprehensive outdoor recreation plan to attain eligibility for state and federal grants.

## **Town of Lincoln Comprehensive Plan Priorities Revised and Adopted June, 2015**

### **1.1 Groundwater Protection**

**Goal: The groundwater in the Town of Lincoln will be free of all sources of contamination.**

**Guiding Principles:**

Avoid human-influenced actions, increased domestic livestock, agriculture, construction, and residential development that deplete the area's lakes, streams, wetlands and groundwater resources.

Promote the use of sound agricultural and soil conservation methods that minimize groundwater contamination.

Encourage conservation practices that minimize non-point source pollution of the town's surface waters and contamination of groundwater: best management practices, performance standards, regulations, permit issuance, etc., should be followed by farms, construction sites, etc., to reduce polluted runoff per Wisconsin Department of Natural Resources and Department of Agriculture, Trade and Consumer Protection Run-off Management Administrative Rules.

Work cooperatively with surrounding jurisdictions and the county to protect groundwater resources.

**Objective 1:** Identify those areas where susceptibility to groundwater contamination is highest and develop tools and plans to ensure that land use within these areas occurs in a manner consistent with protecting groundwater.

1. Identify experts (e.g. Wisconsin Geological and Natural History Survey, Kewaunee County Land Water Conservation Department, UW-Stevens Point, UW-Green Bay, Kewaunee County Land Information Office) to conduct a comprehensive groundwater assessment study to help determine impacts / solutions to Town of Lincoln groundwater quality and quantity issues (i.e. Groundwater Mapping).
2. Engage firm to present groundwater mapping potential.
3. Obtain proposal from firm.
4. Present proposal to Board of Supervisors; proceed if Board of Supervisors authorizes.
5. Look for grant and cost sharing opportunities; apply for grants and / or cost sharing.
6. Sign agreement with firm.
7. Begin Work--Identify groundwater recharge sites (wetlands, lakes and ponds), flow, water table elevation, and areas of shallow soils. Identify those areas where susceptibility to groundwater contamination is highest. These are areas where development should be carefully considered for potential impact.
8. Complete Groundwater Map.

**Objective 2:** Develop plans to ensure that land use within these areas occurs in a manner consistent with protecting groundwater.

1. Identify potential sources of contamination to our groundwater (and surface water) resources.

2. Identify human resources (Bay Lakes Regional Plan Commission, Kewaunee County Land and Water Conservation Department, etc.) to help develop ordinances, etc. Plans could potentially include development of ordinances to require the installation of groundwater test and observation wells to measure transmissivity (how fast water moves - how much can be pumped) and storativity (how much water can be stored) for each new development, or for commercial or industrial development.
3. Develop possible land use plans, ordinances, or conditional use permits.
4. Present land use plans or ordinances to Board of Supervisors.

**Objective 3:** Along with Kewaunee County Land and Water Conservation Department and Bay Lakes Regional Plan Commission, create a Town of Lincoln Land Use Planning (or regional) Map based on protection of ground and surface waters and any other environmentally or culturally significant resources.

1. Identify characteristics of "areas susceptible to environmental contamination" (e.g. based on soil type, depth to bedrock, slope, water table, recharge, etc.) or those that are "environmentally or culturally significant".
2. Identify resources available to help identify significant sites.
3. As necessary, engage resources with help identifying significant sites susceptible to environmental contamination.
4. If possible and / or timely, obtain county or regional buy-in.
5. Work to develop a Town of Lincoln Land Use Planning Map.

### 1.2.1 Surface Waters

**Goal: The Waters of the State in the Town of Lincoln will be free of all sources of contamination.**

**Guiding Principles:**

To the extent practicable, areas immediately adjacent to and surrounding wetlands should be developed using techniques to minimize effects on wetlands (i.e. buffers, setbacks, etc.).

Avoid human-influenced actions, increased domestic livestock, agriculture and residential development that deplete the area's lakes, streams, wetlands and groundwater reserves. Encourage the protection of all watershed resources, both quality and quantity.

Wetland areas adjacent (but not limited to) Casco Creek, Rio Creek, Silver Creek, the Black Ash Swamp, and the Ahnapee River; those having special wildlife and other natural values; should not be allocated to any residential or commercial development and should not be drained or filled.

**Objective 1:** Protect the Surface Waters of Lincoln Township.

1. Identify potential sources of contamination to our surface water (and groundwater) resources.
2. Identify resources who may best identify strategies/techniques/ program / agencies to help accomplish objective
3. As necessary, meet with identified resources (e.g. Kewaunee County Land and Water Conservation Department, Bay Lakes Regional Plan Commission, Natural Resources Conservation Service, Wisconsin Department of Natural Resources, Environmental Protection Agency) to review current ground water contamination, surface water impairments, and threats to wildlife.
4. Develop ordinances and plans that would best protect surface waters and wetlands.
  - a. Create, maintain and enhance natural buffers along stream banks.
  - b. Support the efforts of Kewaunee County Land and Water Conservation Department to enforce stream and lake setback requirements.
  - c. Create or enforce local zoning requirements and policies established by the Kewaunee Country Land and Water Conservation Department.
  - d. Create, maintain and enhance natural buffers along stream banks.
  - e. Educate residents about the importance of environmental corridors.
5. Present plans to Board of Supervisors.
6. Approve plans.
7. Implement plans.

### 1.2.2 Natural Resources

**Objective 2:** Protect wetlands and other wildlife habitats, particularly those unique to the Town.

1. Identify agencies and groups who could help to better identify and protect wildlife habitats, particularly those unique to the Town.
2. As necessary, meet with identified groups to learn about programs and practices available.
3. Create a plan to protect and preserve wetlands and habitats in their natural state (e.g. through the adoption and enforcement of a wetland preservation ordinance).
4. Present plans to Board.
5. Approve plans.
6. Implement plans.

**Objective 3:** Create, maintain, and protect open spaces, wildlife habitat, scenic vistas, recreational venues, and perhaps some farmland.

1. Identify resources who may best identify strategies / techniques / program / agencies to help accomplish objective.

2. As necessary, meet with identified resources (e.g. Natural Conservation Resources Service, Wisconsin of Natural Resources, Kewaunee County Conservationist, Environmental Protection Agency) to review current status relative to objectives.
3. Develop plans based on findings (may include methods to encourage development of conservation corridors, areas, and subdivisions to maintain open spaces, wildlife habitat, scenic vistas, and perhaps some farmland).
4. Present plans to Board.
5. Approve plans.
6. Implement plans.

### 1.3 Water Protection / Well Water Safety

**Goal: All wells in the Town of Lincoln will provide abundant, safe, potable water to all residents, farms, businesses, and industries in the township.**

#### Guiding Principles:

Promote the use of sound agricultural, soil conservation, construction methods, and land uses that minimize groundwater and surface water contamination.

Avoid human-influenced actions and increased domestic livestock, agriculture and residential development that deplete the area's lakes, streams, wetlands and groundwater resources.

Encourage conservation practices that minimize non-point source pollution of the town's surface waters and contamination of groundwater. These include: best management practices, performance standards, regulations, permit issuance, etc., and should be followed by farms, construction sites, etc., to reduce polluted runoff per Wisconsin Department of Natural Resources and Department of Agriculture, Trade, and Consumer Protection Run-off Management Administrative Rules.

#### Objective 1: Protect drinking water resources

1. Identify resources that may best identify strategies / techniques / programs / agencies to help accomplish objectives.
2. As necessary, meet with identified resources (e.g. Natural Resources Conservation Services, Wisconsin Department of Natural Resources, UW-Stevens Point, Kewaunee County Conservationist, Environmental Protection Agency) to review current ground water contamination, surface water impairments, and identify potential solutions and programs available to accomplish objective (may include coordination with the Kewaunee County Land and Water Conservation Department and Wisconsin Department of Natural Resources to implement agricultural and residential best management practices to reduce nonpoint source water pollution).

3. Develop plans that will protect water resources.
4. Present plans to Board.
5. Approve plans.
6. Implement plans.

**Objective 2:** Raise Public's Awareness of responsibility & steps to take to protect well water supply.

1. Identify resources that may best identify strategies / techniques / program / agencies to help accomplish objective.
2. As necessary, meet with identified resources (e.g. Natural Resources Conservation Services, Wisconsin Department of Natural Resources, UW-Stevens Point, Kewaunee County Conservationist, Environmental Protection Agency, Bay Lakes Regional Plan Commission, UW-Extension) to review current ground water contamination and surface water impairments to identify potential solutions and programs available to accomplish objective.  
May Include:
  - a. Proper maintenance and periodic testing of private wells.
  - b. Proper maintenance of septic systems.
  - c. Educational opportunities for all residents and landowners about groundwater and surface water quality and quantity protection issues, techniques and programs.
  - d. Encourage adoption of land use agreements.
3. Develop plans that will raise public awareness of responsibility and steps to take to protect water resources.
4. Present plans to Board.
5. Approve plans.
6. Implement plans.

## Appendix

The 2017 Supplement incorporates the following documents by reference:

- Ahnapee and Kewaunee HUC 10 Watersheds map; USDA-Natural resources Conservation Service, July 2015.
- Anaerobic Transformation Kinetics and Mechanism of Steroid Estrogenic Hormones in Dairy Lagoon Water, Zheng et al, April, 2012.
- Assessing Levels of Endocrine Disrupting Chemicals in Groundwater Associated with Karst Areas in Northeast Wisconsin, Bauer-Dantoin et al, January, 2010.
- Assessing Seasonal Variations in Recharge and Water Quality in the Silurian Aquifer in Areas with Thicker Soil Cover; Muldoon, et al, August, 2008.
- Center for Land Use Education, College of Natural Resources, UW-Stevens Point/Extension

- Cost Estimates for WGNHS Mapping Efforts in the Town of Lincoln (Kewaunee Co.); UW-Extension Wisconsin Geological and Natural History Survey; March 23, 2015
- Crescent Beach Management and Monitoring of Non-Point Pollutants in Ahnapee River Watershed; Dr. Kimberly M. Busse, University of Wisconsin Oshkosh, January, 2014.
- DRAFT Final recommendations for Compliance Team, 12-17-15.
- Executive Summary: Fiscal Year 2015 Report to the Legislature; Wisconsin Groundwater Coordinating Council.
- Final Report of the Northeast Wisconsin Karst Task Force, February, 2007.
- Groundwater Collaboration: Short-term Solutions in Relation to Contaminated Well water in Kewaunee County Workgroup, 12-17-15.
- Groundwater Collaboration Workgroup Final Report, June, 2016.
- Groundwater Protection Overlay District;  
[https://www.epa.gov/sites/production/files/2015-12/documents/model\\_groundwater\\_ordinance.pdf](https://www.epa.gov/sites/production/files/2015-12/documents/model_groundwater_ordinance.pdf)
- Groundwater Quality Changes in a Karst Aquifer of Northeast Wisconsin, USA: Reduction of Brownwater Incidence and Bacterial Contamination Resulting from Implementation of Regional Task Force Recommendations, Erb and Luczaj, April, 2015.
- Groundwater Susceptibility Maps and Diagrams for the Town of Byron, Fon du Lac County, WI, Wisconsin Geological and Natural History Survey, March, 2010.
- Guide to Community Planning in Wisconsin, Brian Ohm, Department of Urban and Regional Planning, UW-Madison/Extension, 1999.
- Hydrogeological Characterization of the Town of Lincoln, Kewaunee County, Wisconsin, Michael Parsen, Stephen Mauel, Carolyn Streiff, Madeline Gotkowitz, Wisconsin Geological and Natural History Survey, 2017.
- Kewaunee and Ahnapee River Watershed Project, NRCS and KCLWCD, September, 2015.
- Kewaunee County Environmental Corridors, Bay Lakes Regional Plan Commission,
- Kewaunee County Land and Water Resource Management Plan, 2010 to 2019.
- Kewaunee River, Kewaunee Baseline Monitoring Report, WDNR, 2001
- Investigating Intra-annual Variability of Well water Quality in Lincoln Township: Final Report; Davina Bonness, KCLWCD; Kevin Masarik, Center for Watershed Science and Education, UW-Extension & UW- Stevens Point; July 2014.
- Kewaunee County Public Health and Groundwater Protection Ordinance; August 2014.
- Living With Karst: A Fragile Foundation, American Geological Institute, 2001.
- Managing Groundwater in Karst Landscapes, Bill Hafs, Brown County LWCD, BLRPC Workshop, July, 2012.
- Model Wetland Conservation Ordinance—A Policy Development Tool for Counties, Cities, Villages, Towns, and Tribes; Wisconsin Wetlands Association.
- Moving Forward (Draft) Bayfield County Large-Scale Livestock Study Committee Report and Recommendations to the Bayfield County Board, December, 2015.
- Nitrate in Groundwater: A Continuing Issue for Wisconsin Citizens, by the Nutrient Management Subcommittee of the Non-Point Source Pollution Abatement Program Redesign; March, 1999.

- Ordinance No. 12012014A: Ordinances requiring manure storage facilities constructed after July, 1983, to meet the technical standards established by the Town pursuant to Wis. Stats 92.16.
- Petition for Emergency Action Pursuant to the Safe Drinking Water Act, to Protect the Citizens of Kewaunee County, Wisconsin from Imminent and Substantial Endangerment to Public Health Caused By Nitrate and Bacteria Contamination of an Underground Source of Drinking Water, October, 2014.
- Project Phoenix Review: Peer Review of the Feasibility Study Report Produced by Dynamic Concepts, Troy Runge and Mahmoud Sharara, Wisconsin Energy Institute, October, 13, 2016.
- Protecting Groundwater in Wisconsin Through Comprehensive Planning, USGS, October, 2014.
- Relationship Between Nitrate in Water Wells and Potential Sources in Lower Yakama Valley, WA, USEPA Region 10, March 2013.
- Resolution 2007-07: Resolution Adopting Local Performance Standards for Agriculture to Improve and Protect Groundwater Quality and for Health and Safety of the Public; Calumet County, WI
- Science Documentation and Recommendations (report and presentation), Large Livestock Siting Committee Report and Recommendations in support of Creation and Adoption of Ordinances to Regulate Concentrated Animal Feeding Operations (CAFO's) Sylvester Township, Green County, WI., February, 2016
- The RAP Sheets: Industrial Dairies in Kewaunee County, Socially Responsible Agricultural Project, April, 2015
- Sources of Fecal Contamination in the Dolomite Aquifer in Northeastern Wisconsin, Mark Borchardt (USDA-Agricultural Research Service), Maureen Muldoon (UW-Oshkosh Department of Geology), and Randy Hunt (USGS Wisconsin Water Science Center), 2017.
- Town of Centerville, Manitowoc County, 20-Year General Plan Design.
- Town of Lincoln Hydrogeological Characterization – Kewaunee County, Wisconsin; UW-Extension Wisconsin Geological and Natural History Survey; September 21, 2015.
- *Water Permitting and Enforcement*, Department of Natural Resources, State of Wisconsin Legislative Audit Bureau, June, 2016.
- Wisconsin Groundwater Coordinating Council Annual Report to the Legislature <http://dnr.wi.gov/topic/groundwater/gcc/>
- *Wisconsin Land Use & Planning Law*, Brian W. Ulm, University of Wisconsin Law School, 2013 Edition.
- Wisconsin's Non-Point Source Program Management Plan FFY 2016-2020, WDNR, 2015.