SW LEAD MINE REGION

AEA

Lafayette County WI: Gratiot, Monticello, Shullsburg, & Wiota Townships



2013



UW Extension and Lafayette County Land Conservation Dept.

Table of Contents:

1. Part I – Opening page of AEA Application with AEA Map (pg 3-4) 2. Part II – (Introduction & Questions 1- 10 of AEA Application) (pg 5-45) **3. Part III** - **MAPS:** Map of Proposed AEA (Spatial data on Flash Drive) **a.** Appendix – Original Planning MAP of Pecatonica AEA (Foldout) b. Gratiot MAPS (SWWRPC & Lafayette Land Records) i. Map of Median Household Income ii. Map of Soil Classification iii. Map of Flooding Frequency iv. Map of Existing Land use (pg 25) v. Map of Proposed Land use (pg 34) c. Monticello MAPS i. Map of Median Household Income ii. Map of Soil Classification iii. Map of Flooding Frequency iv. Map of Existing Land use (pg 26) v. Map of Proposed Land use (pg 36) d. Shullsburg MAPS i. Map of Median Household Income ii. Map of Soil Classification iii. Map of Flooding Frequency iv. Map of Existing Land use (pg 28) v. Map of Proposed Land use (pg 37) e. Wiota MAPS i. Map of Median Household Income ii. Map of Soil Classification iii. Map of Flooding Frequency iv. Map of Existing Land use (pg 29) v. Map of Proposed Land use (pg 39) f. Lafayette County MAPS i. Map of Land cover (NASS/WASS) (pg 29) 4. Part IV – Images (most in folder on prescribed digital format on Flash Drive) a. Pictures from AEA b. Public Outreach and Publicity Information 5. Part V – Signature Pages & Local Resolutions **a**. Petitioner Agreements **b**. Political Resolutions c. Cooperator Support Letters 6. Flash Drive with: a. Word Document of AEA application b. PDF of AEA Application c. Geospatial Data for AEA map d. Photos Folder in digital format e. Folders with Map PDFs and labeled additional supporting documents

Cover Photos: Photo of Russell's Grain Bins and Daryl Dammen's barn with mural. Original artist of mural was Frank Engebretson. Both photo's taken by Roger Lange

ARM-LWR-456 (Rev. June 2012)



Wisconsin Department of Agriculture, Trade & Consumer Protection Division of Agricultural Resource Management P.O. Box 8911 Madison, WI 53708-8911 (608) 224-4500

Agricultural Enterprise Area Petition

The undersigned persons hereby petition the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP), pursuant to s. 91.86, Wis. Stats., to create an Agricultural Enterprise Area (**AEA**) under s. 91.84, Wis. Stats. We have read the guidance provided and submit the following information in support of the petition (*use the space provided or check the appropriate box*):¹

PART I. GENERAL INFORMATION

A. Name of AEA.		SW Lead Mine Region AEA				
B. County or counties in which the proposed AEA is						
C. All towns, villages or cities in which the proposed	AEA is located.	Gratiot, Monticello Shullsburg, Wiota				
D. Number of owners of eligible farms within the pro- who signed the petition.	posed AEA	133 landowner signature pages				
E. Total number of acres in the proposed AEA.		approx 102,325 acres				
F. All parcels in the proposed AEA are located within area designated in the certified county farmland		Yes No				
G. All parcels in the proposed AEA are contiguous.		🛛 Yes 🗌 No				
H. The proposed AEA is primarily in agricultural use.		🛛 Yes 🗌 No				
I. Primary type of agricultural production in the prop	oosed AEA.	Dairy & Crops				
J. Designated contacts for the AEA. Please list at le AEA; preferably at least one staff contact (county, to planning commission etc.) and one landowner repre- more than two contacts. Attach a separate page if n	wn, UWEX, regional sentative. ² You may have					
Name: Allen Kraus	Name: Roger J. Lange					
Address: 17500 Co. Rd. A	Address: 1900 Ervin Johnson	n Dr.				
Shullsburg, WI 53586	Darlington, WI 53530					
Phone number: (608)482-0218	Phone number: (608) 776-38	336				
Email:	Email: Roger.Lange@wi.nac	cdnet.net				

¹Personal information you provide may be used for purposes other than that for which it was collected, s. 15.04(1)(m), Wis. Stats. ² The listed contacts should be willing to:

- Respond to an annual status update inquiry from the Department of Agriculture, Trade and Consumer Protection
- Engage in activities within the AEA

[•] Communicate with other petitioners and partners in the AEA, with the Department of Agriculture, Trade and Consumer Protection and with contacts in other AEAs



PART II: PURPOSE AND RATIONALE FOR AEA

Introduction

150 years ago, southwestern Wisconsin was the political and economic hub of Wisconsin with the first territorial capitol, flourishing lead mines and close proximity to the travel confluence of the Mississippi and Wisconsin Rivers. Some of the Midwest's wealthiest communities were in the region. With time, however, lead mining and river travel gave way to new industry and travel modes, and the local economy became predominantly agricultural. The state capitol was relocated, as was the railroad and many employers soon followed. The region's efforts to adapt to this gradual economic shift have met with varying degrees of success, and today the future remains uncertain.

The 120-mile-long Pecatonica River that originates in the Driftless Area of rural southwestern Wisconsin and flows into the industrialized lands of northern Illinois offers economic strengths in agricultural production, manufacturing, and food processing which lie in striking distance to urban commercial markets. With growing external economic pressure and overall out-migration, the region is interested in exploring ways to apply local resources and regional strengths towards job creation and economic stability. Lafayette County, WI and the proposed Southwest (SW) Lead Mine Region Agricultural Enterprise Area lie at the heart of these economic strengths and offers development opportunities to target future growth industries. In particular, opportunities revolve around subsequent cluster development around value/supply chains approaches in: 1) local food production, 2) bio-product development, 3) renewable energy production, and 4) entrepreneurial and workforce development as well as the added incentives of farmland preservation and environmental stewardship. More specifically, emerging economic development opportunities include:

- Entrepreneurship technical training to retool local workers for emerging professions in bio-products and food-related industries
- Expanded market development and expansion for local food processing, new product development and locally branded foods
- New product research and development in corn and soybean based products for non-food, bioindustrial products
- Project potential for energy efficiency and renewable energy technologies leading to economic sector growth on farm operations and rural areas
- Demonstration projects related to innovative, sustainable practices for land, soil, and water management.

Lafayette County's Economic and Demographic Conditions

Lafayette County is the most agricultural dependent county in the state and subsequently suffers a limited diversified economy aside from outside agricultural production. The Wisconsin Department of Workforce Development in 2008 estimated that Lafayette County's per capita personal income (total county income/# of people) was only \$25,169 compared to the State's average of \$34,405. The UW-Extension Center for Community Economic Development ranks Lafayette County as fifth in the state's Top Ten "Exporters of Labor," as the region suffers from "brain drain" of youth leaving to find jobs in urban areas. Approximately 86% of the County's residents commute out of the county for employment. (see following graph next page left)



Human capital flight known as "brain drain," is the largescale emigration of individuals with technical skills or knowledge usually regarded as an economic cost and parallel of financial capital flight. While brain drain is not exclusively a rural phenomenon (see graph top right), the picture is particularly bleak for rural farm dependent Southwest Wisconsin (see graph to middle right). Economic growth has stalled in brain drain communities due to the lack of resources-financial, human, technological, and physical. In a common scenario, small towns feel victimized by forces beyond their control and passively wait for external assistance in the form of expected state or federal funds instead of looking inward to find assets and strengths with limited resources. Creativity and talent cultivation involves fostering an environment that is conducive to creative ideas (innovation), people, and enterprises; increasing the pool of knowledge workers; equipping people with higher order skills; and preparing people for community leadership.

Additionally Lafayette County's population is aging faster than that of the rest of the state (see graph bottom right). Upon closer look, three of the townships in the SW Lead Mine Region AEA are aging at a faster rate than other townships in the county. (see graphs next page provided by Southwest Wisconsin Regional Planning Commission (SwWRPC) At the same time, these areas are looking to pass on farming resources and practices to their next generations.



2013

LAFAYETTE COUNTY, WI

Agriculture is an important economic force in Lafayette County as **it is the most agricultural dependent county in the state** and the number one farm serviced county in the nation. Out-migration of college-educated people tends to be most pronounced in counties that lean heavily on mining or farming, which is why states such as Pennsylvania, Illinois, Iowa and North Dakota struggle with chronic brain drain. Wisconsin has only two counties — Lafayette and Clark—which are considered farming-dependent by the U.S. Department of Agriculture, which



factors only on-farm employment in making the designation.¹ While the job outlook looks to improve in emerging agricultural and environmental industries such as bioenergy, more investment in renewable energy is likely to bring new generating facilities and jobs to rural areas rich in potential sources of energy such as cropland, wood and paper waste, wind, and water.

Interestingly in Lafayette County, the number of farms has increased with more family-owned farms, related businesses and industries that provide equipment, services and other products farmers need to process, market and deliver food and fiber to consumers (see bottom graph at right). The production, sales and processing of Lafayette County's farm products generate employment, economic activity, income tax revenue. In turn the county is seeing a greater return of young people wanting to take over the family farm however applying agriculture in a different manner. Neglecting these key opportunities of new ideas and enterprises puts young people on an inevitable path toward leaving. This can diminish competitiveness and rural towns' ability to recruit new industry and thus incumbent workers can be economically pitted against immigrants through a region's overreliance on one industry such as agribusiness; in which labor cost have been cut aggressively (see middle graph at right and map on next page).



Wisconsin Latino Population & Industry



Sources: Applied Population Lab. UW



¹ Berry, Bill. 2011. "Gaining on the Drain." CALS GROW Magazine, January 3rd, 2011 http://news.cals.wisc.edu/communities/2011/01/03/gaining-on-the-drain/

LAFAYETTE COUNTY, WI

Overall Lafayette County has experienced growth in Hispanic populations (see graph below) of about 6% which was due primarily to agricultural sector growth.² Southwestern Wisconsin region grew by 2.5% according to the 2010 census despite previous projections of outmigration due to increases in Hispanics and Amish populations.



Upon closer look, (see graph to bottom right) the townships of Gratiot, Wiota, & Shullsburg have experienced marginal population growth. Monticello Township has experienced little to no growth probably due to the fact

they are mostly made up of corn and soybean fields. Currently the SW Lead Mine Region AEA borders the state of Illinois to the south, Green County to the East, and last year's designated Pecatonica AEA to the north, all of which are currently experiencing development and represent potential future growth pressures.



2 Rural Policy Research Institute, 2006. "Demographic and Economic Profile of Wisconsin," http://www.rupri.org/Forms/Wisconsin.pdf



Playing to the Region's Strengths

Lafayette County, like many rural communities in the Midwest, has sustained job losses resulting from the economic downturn. However, the area has opportunities in local value added production around food and renewable energy, entrepreneurship, and tourism. It ranks 67th out of 72 counties in terms of wealth because as the state's highest agriculturally dependent county, there is little economic diversity – the county has no stoplight! Like most rural counties it has a shrinking tax base despite increased costs and demand for services from local government at a time when elected officials and county departments are under intense pressure to reduce their overall budgets due to lessened state and federal aid.

However, by assessing the region's strengths and playing to those niche industries and developing resulting clusters of supporting supply chain industries, the region can work to re-establish itself as a "destination" for food processing and multiple forms of value added agriculture production. And by focusing on developing homegrown entrepreneurs by working with existing educational institutions in the region (UW-Platteville and Southwest Wisconsin Technical College), support would be provided for the development of entrepreneurial and technical training programs in such emerging markets. Additionally, these areas have been identified by the region's youth as preferred work potential and the capacities of existing institutional assets such as the UW Discovery and Pioneer Research Farms would support on the ground training, demonstrations, and seminars.

Regional Cluster Establishment & how it fits with State Economic Development Goals

The Doyle Administration undertook an analysis of Wisconsin industries to identify which sectors Wisconsin has a "comparative advantage." That initiative identified eight "Established Wisconsin Clusters" (wind energy, biotechnology, dairy, food products and processing, paper and wood products, plastics, printing and tourism).³ Southwest Wisconsin and particularly Lafayette County have these cluster advantages in Dairy, Feed Products and potentially food products, plastics, and wind energy (as well as other renewable energies).

For example, dairy farmers and cheese makers find that it is to their own self-interest (i.e., profits) to be located in the same general geographic areas. By "co-locating" they can build a "critical mass" that improves the profitability of individual



firms. Porter offers a "diamond model" of four characteristics or drives of how regional clusters

3. Deller, Steven and David Williams, 2009. The Contribution of Agriculture to the Wisconsin Economy http://www.aae.wisc.edu/pubs/sps/pdf/stpap541.pdf

SOUTHWEST LEAD MINE REGION AEA: GRATIOT, MONTICELLO, SHULLSBURG, & WIOTA TOWNSHIPS can develop and promoted⁴:

1. Sophisticated local demand for cluster products and services. For example, the demand for specialty cheeses and organic milk can spur the dairy industry to be more innovative and competitive and may encourage the development of industry subsectors such as dairy goats and sheep.

2013

- 2. Local supply inputs from related and supporting industries. For dairy this might include a critical mass of large animal veterinarians, dairy, forage and manure handling equipment dealers, educational opportunities or specialized labor and professional services.
- 3. Favorable factor (resource) conditions. There are adequate supplies of water and terrain that is suitable for forage production for dairy feed and manure spreading, or a local road system that can manage the demands of milk trucks.
- 4. A competitive context for firm rivalry, further driving innovation and productivity. Specialty cheese makers enter spirited competitions to see who makes the best products.

The next step would be in developing an agricultural supply chain around the types of food products, bio based products, waste stream recapture, or renewable energies. A supply chain is a system of organizations, people, technology, activities, information and resources involved in moving a product or service from supplier to customer. Supply chain activities transform natural resources, raw materials and components into a finished product that is delivered to the end customer.⁵ An illustration of an agricultural supply chain is seen in the below example (though each entity can have multiple partners & supporting industries as well):



Image schematic representation of the agri-food supply chain from emeraldinsight.com or http://empathetic-unplugged.blogspot.com/2010/03/spring-cleaning.html

Based on the newly formed Wisconsin Economic Development Corporation (WEDC) and its strategic plan⁶ six key strategies were identified as focus areas of which three are areas that the Southwest Wisconsin Region, Lafayette County and the SW Lead Mine Region AEA are working in tandem as key areas to grow as well. (Examples of regional efforts follow the WEDC identified strategies)

4 Dept. of Administration, 2002. Planning for Agriculture in Wisconsin http://www.doa.state.wi.us/dir/documents/ag_guide.pdf 5 Nagurney, Anna. 2006. Supply Chain Network Economics: Dynamics of Prices, Flows, and Profits. Edward Elgar Publishing.

6Wisconsin Economic Development Corporation. 2011. Strategic Plan. wedc.org/docs/wedc-strategic-plan.pdf



STRATEGY 4: Implement a focused target industry advancement capability in which resources are concentrated on high value industry and emerging business consortia opportunities.

Cluster development in agriculture, local food processing, and renewable energy have been identified by regional stakeholders with the next step being in identifying the network of participants in order to build the supply chain. Current initiatives with regional partners include: (all projects will be explained in the following sections)

- A vegetable feasibility study for the tri-state region
- A regional renewable energy opportunity plan for the region in which the SW Lead Mine Region AEA was highlighted for as being a community ready for renewable energy development.
- A USDA/HUD Sustainable Communities Grant working to identify other regional economic opportunities secured by SWWRPC in which they are leveraging additional grants and projects to building farm to school programs, broadband to provide access to farmers around marketing development and networking, transitioning infrastructure needed for aging communities.
- Dairy Clustering around milk volume production, cheese processors, collectors, builders, as well as waste management including bio-digestion

STRATEGY 5: Accelerate entrepreneurship and innovation in Wisconsin through aggressive development of R&D and early-stage capital availability and managerial talent development.

The goal of the Green Cheese project is the development of a decision aid for dairy farmers, dairy processors and policy makers, to quantify the energy intensity and environmental impacts of integrating dairy and bio-fuels production systems as well as the implications of implementing selected new technologies and management practices on the energy and nutrient balance as well as global warming potential of individual farms and aggregated for the state of Wisconsin. Synergies are considered between dairy production systems and renewable energy development that lead to benefits for the dairy and bio-fuels industries in the state of Wisconsin.⁷

Southwest Technical College (SWTC), UW Extension (UWEX), CESA 3, and the Southwest Wisconsin Small Business Development Center (SBDC) are collaborating in identifying the region's assets and needs in order to meet the workforce needs for the future. They are in partnership with the local agricultural sector and with the school districts to engage in youth entrepreneurship, co-op job and school programs, and curriculum development for emerging fields around the bio-based production, renewable energies, and local foods.

UW Platteville (UWP) Pioneer Discovery Farm and the Center for New Ventures have recently been selected as one of 10 USDA regional agricultural research stations as they are working to enlarge the student enrollment and become more of a research institution to meet the region's emerging cluster development around agriculture, dairy, bio-based products, and renewable energies. UW Extension and local farm petitioners are working with the farm to establish pilot projects that can be carried out at the community level and work closely with university faculty in test plots.

Southwest Badger Research and Development Council has been engaged in the region with biomass, switchgrass and other feedstocks studies to identify the economic impacts of small scale decentralized biofuels conversion and renewable energy production. Along with Southwest Wisconsin Regional Planning Commission (SWWRPC), UW Madison, UWEX, WI Bioenergy Initiative, Great Lakes Bioenergy Research Council, this regional collaboration is working to offer farms, businesses, and communities in SW Wisconsin alternative approaches to energy independence and economic development opportunities that play to the region's strengths.

STRATEGY 6: Expand Wisconsin's international business development opportunities and resources.

Currently, Lafayette County is home to four cheese producers that engage in commercial endeavors at the international stage:

- 1. Darlington Dairy Supply which works with start-up cheese operations in China and Ecuador in setting up mobile and decentralized cheese processing units
- 2. Mexican Cheese Producers currently located in Darlington WI is looking to expand their markets not only in ethnic enclaves or urban areas but into Mexico as well.
- 3. Lactalis is located in Belmont WI and is ranked the No. 2 cheese producer and marketing firm in the world and ranked No. 3 in the United States behind Kraft. It is a French owned company that has been a long standing producer in Lafayette County and is currently expanding its operations in Belmont.
- 4. Montechevre also located in Belmont, WI (Lafayette County) draws from regional goat milk producers to make the products it ships nationally and internationally. Additionally it has been expanding its waste management operations using a series of wetlands and bio-digestion finishers. It is a partner with the village of Belmont in working with the infrastructure needs.

Moreover, playing to the region's strengths are dependent on the social acceptance from local folks and government as to the type of economic development that is engaged and supported. Positive social indicators from the public and elected officials demonstrated from surveys in the County and Township Comprehensive plans illustrate local support in this type of asset based agricultural economic growth. As a result, implementation barriers are lessened.

Economic Development

Please give use your opinion about development in your community. Your selection for questions 24-28 are: Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD, No Opinion (NO), and No Response (NR).

		SA	Α	D	SD	NO	NR
28.	Lafayette County jurisdictions should pursue						
	alternatives as a form of economic						
	development:						
a.	Ethanol plants	33%	36%	11%	5%	8%	7%
b.	Solar energy	35%	39%	7%	1%	9%	9%
c.	Wind energy	48%	37%	3%	2%	5%	5%

Your selections are: Essential (E), Very Important (VI), Important (I), Not Important (NI), No Opinion (NO), and No Response (NR).

		E	VI	Ι	NI	NO	NR
29.	Rate the importance of the following:						
a.	Agricultural related businesses	53%	29%	> 12%	1%	2%	3%
b.	Commercial and retail development	23%	39%	26%	3%	3%	4%
c.	Downtown development – main street	19%	30%	35%	7%	5%	4%
d.	Home based businesses	9%	20%	44%	14%	8%	5%
e.	Industrial & manufacturing development	24%	36%	28%	4%	3%	5%
f.	Tourism and recreation	23%	31%	30%	7%	4%	5%

Entrepreneurial/Workforce development – Types of Jobs the Future Generation Wants

In an effort to keep local knowledge and expertise living and working in the region, Lafayette County is working to spearhead the development of partnerships between industry, higher education, and the local school districts through agricultural education through UW Extension's 4-H program. These partnerships will provide alternative curriculum and potentially additional courses that would prepare students for careers in local food production, bio-processing, "green" energy, or other new opportunities.

These decisions were determined by outcome from a 2011 youth survey conducted in all seven school districts grades 9-12 for a total of 847 students which was a 100% response rate! The survey asked questions about needs for youth to return or stay in the area Lafayette County along with the degree of interaction and perception of their local community, long term plans and interests, and vision for the county for job growth. Under the guidance of UW Extension, students devised the questions, contacted their school administrators, administered the survey, and compiled the data. The survey illustrated the top three industries that youth wanted to work in were: medical fields, green technologies or businesses around bioproducts or energy, or working for themselves with their own business. About 84% of students wanted to come back to the county to live and work, while only 6% wanted to go into traditional farming, though 92% loved that Lafayette County was an agricultural community and did not want to change the "Cows and Plows Image" and 72% supported the growing Hispanic population. Based on the survey results, the students created a county vision statement with recommendations on how local government can reflect current and future community needs: Lafayette County is a historic rural county with rolling hills, great farmland, low crime, involved schools, and caring communities. Over the next 20 years, we will work to improve and restore the county by: (http://www.schooltube.com/video/27ddefd40108f4b065c9/)

With entrepreneurial training and workforce development programs in place, Lafayette County would encourage start-up companies to locate in the area, providing a source of jobs for Lafayette County's young people who have developed an interest in renewable energy and bio-based technology in school but further expertise through additional training at local universities or technical colleges.

To ensure the successful advancement of entrepreneurial and technical training, Lafayette County is working through economic development practitioners and regional agencies to provide support and resources for individuals, businesses, and educational institutions. Lafayette County intends to develop strategies in the creation of on-farm incubator spaces, services to assist start-up enterprises, information resources, and networking opportunities through local examples and small placed based enterprises emerging from the proposed SW Lead Mine Region AEA. As a result of these efforts, much needed job growth in the food processing and production arena will be positioned to be grown in new opportunities of bio-based products and energy.

Local Foods and Food processing/development

Regional partners with Lafayette County are working to link consumers with local food producers to build on the proximity of opportunities (see figure at right). Lafayette County is well-positioned to take advantage of this movement as an economic, farmland preservation, and community health initiative. The rise of the organic and local food market, in particular, has sparked renewed vigor and interest in agriculture. Such farms produce highervalue products and fit into areas with steeper slopes or rolling hills, such as those found in Lafayette County. The



AEA and surrounding region would take advantage of the expanding meat, cheese, and other potential markets based on the volume of raw materials already produced in the area, existing outlets that would be expanded with possible new



outlets. With its proximity to 12 million people in the Chicago-Milwaukee megacity food market, as well as the tri state area, the Pecatonica River region provides an emerging opportunity to enhance regional food consumption of locally produced and processed foods. The "Slow Food" way of preparing food (using local ingredients, making dishes from scratch, and focusing on providing nourishing, healthy food) is a way that small-scale farms, and producers and restaurateurs are using to get their products into niche markets. Local outlets such as farmers markets, community supported agriculture operations, schools, hospitals, and other local institutions, restaurants, and groceries which in turn enhance local tourism and jobs.

Spearheading such a study is Southwest Wisconsin Regional Planning Commission (SWWRPC) in which Lafayette County is a member. SWWRPC obtained a USDA Rural Development, Rural Business Opportunity Grant (RBOG) to look at Vegetable Production Feasibility Study for the Tri-State Region. The project goals of the vegetable study are to: 1) Identify whether vegetable production in the area can compete regionally at conventional wholesale prices 2) Identify what barriers are currently preventing wholesale vegetable production in the area and 3) Develop a 10-year financial plan

for increasing wholesale production and sale of vegetables within the area. To carry out this work, outreach meetings would be conducted to gauge current efforts and interest among stakeholders within region. From there a comprehensive Access database of agriculture resources within study area (and beyond, as needed) would be constructed and will include:

- Infrastructure
- (warehousing, storage, distribution, processing facilities)
- People (buyers, producers, partners)
- Online (mapped) version of resource database
- A Literature review and summary of relevant studies and literature
- Reports summarizing general information about these resources, e.g. commonalities and networks

In order to achieve the goal of identifying whether vegetable production in the area can compete regionally at current and projected



conventional wholesale prices, determinations will be made on what 10-15 vegetables tend to grow best in the area, the cost of production and production potential for such vegetables, market demand pricing relative to existing commodity markets, and any barriers preventing these potential occurrences.





2013

Lafayette County is uniquely positioned within the regional food supply chain (see the Pecatonica River Valley Opportunities Map above) ⁸ to take advantage of the millions of consumers in the Chicago/Milwaukee Metro Area. The close proximity between the food source, processing, and consumption creates a value chain based on food demand which in turn would lead to the economic expansion of the regional supply chain around food processing and value added agriculture products.

Processing Infrastructure would also be assessed based upon low, base, and high-level production including processing methods, quantities needed to achieve wholesale market access for the produce, and facilities and methods in terms of needs, pros and cons, scale and cost estimates. Lastly, financial investments are needed to achieve processing infrastructure and production and therefore a feasibility study looking at the cost of investment, needed returns to incent private capital on a risk adjusted basis, methods for mobilizing larger scale farm production through mechanization such as pooling resources, Contract/Price mitigation for producers, production, handling, and transportation. Once production growth is deemed achievable, identifying a timeline in which production will likely saturate existing infrastructure or support a larger scale and/or more specialized facility would be the next step.

Overall Wisconsin has a high employment history and comparative advantage in the food processing sector which it contributes to its high manufacturing base (see graph next page).⁹ While this has lagged due to the economic downturn, ⁸ Vanderwalle and Associates, 2009, "Pecatonica River Valley Opportunities Map,"

9 Deller, Steven and David Williams, 2009. The Contribution of Agriculture to the Wisconsin Economy http://www.aae.wisc.edu/pubs/sps/pdf/stpap541.pdf

LAFAYETTE COUNTY, WI

it still remains higher comparatively to the greater Great Lakes region and the national arena.

The next step would be in economic marketing strategy on the local/regional food movement, including attracting new businesses, processors, and tourists. While other communities have successfully branded themselves, there is no cohesive



local foods "image" of Lafayette County. The intent is that by beginning an AEA identity would begin a consortium and network around these long term economic development goals. Taking advantage of this opportunity will require retention of and support for existing area farmers and small-scale cheese and meat processors. Farmers have begun to organize themselves in other areas through farm cooperatives and non-profit organizations that focus on providing quality, regionally unique products.

Expanding Agricultural Products: Bioplastics

Lafayette County and its SW Lead Mine Region AEA are located in the proximity to two of five UW Core Discovery Farms in the nation. In Wisconsin, researchers from the University of Wisconsin and other agricultural agencies and associations collaborate with existing commercial farms to conduct on-farm systems research on these Discovery Farms. Lafayette County's location near the University of Wisconsin campuses in Madison and in Platteville provides a nexus of engineering training, experimentation, while the SW Lead Mine Region AEA and surrounding land area provides a location to implement new agricultural production techniques. In short, the proximity of agricultural research and development near the SW Lead Mine Region AEA provides an opportunity for economic development initiatives linked to these activities. Advances in technology are opening up new markets for traditional agricultural products. A region rich in biomass, the Lafayette County area can supply and process raw materials for emerging economies in biofuels, biobased plastics, and potentially biogeochemical processing. To compete with east and west coast efforts to capture this emerging economy, many mid-nation states are assembling initiatives to produce and commercialize bio-based products since as a production capital, there would be an inherent comparative advantage and eventual economic independence.

The SW Lead Mine Region AEA's strategic location close to a major research and development center in Madison, surrounding agricultural producers, and the manufacturing centers of north and central Illinois lends itself to processing of bio-based products, with raw materials coming in from surrounding farms. A strategy for positioning and marketing Lafayette County as a location for industries that process such materials capitalizes on the proximity but also takes steps towards diversifying agricultural production in the County. The utilization of biofuel production would enhance Lafayette County's marketability towards green businesses and jobs.

LAFAYETTE COUNTY, WI

Enhancing Farm & Community Based Renewable Energy Technologies

As a region rich in renewable resources, Southwestern Wisconsin has an opportunity to develop renewable energy for use both within the region and as supplier to the many larger urban areas within close proximity. By using its full range of energy resources and staying at the forefront of emerging energy technologies and practices, Southwest Wisconsin has the potential to increase production of locally produced clean energy while creating and retaining jobs. This approach will help the region find new ways to satisfy domestic energy demand, minimize environmental impact, and attract service and supply side industries and businesses that rely on energy resources to grow and sustain jobs.

UW Extension (UWEX) has organized key players with ties to communities, government and industry such as Southwest Wisconsin Regional Planning Commission (SWWRPC), SW Badger Resource Conservation & Development (SW RC&D), and UW Madison Urban and Regional Planning (URPL) Program as project partners to create a Renewable Energy Opportunity Plan (REOP) for Southwest Wisconsin. Looking at the general feasibility of community-scale renewable energy projects, the goal is envisioned as a three-phased project: Year one developing a regional plan, year two creating plans for pilot communities identified in year one and year three developing implementation within those pilot communities. The project is designed to map out the inventory of renewable energy sources of solar, wind and biomass in the nine counties, assess current and expected energy demand, infrastructure, potential industry growth and jobs creation, recommend areas for potential energy potential expansion, inventory of other energy plans to compare/contrast, and assess local public perception and engagement through surveying and focus groups. UWEX has collaborated with Wisconsin's energy entities including the Wisconsin Bioenergy Initiative, Bill Johnson of Biomass Consulting, The New North, Sara Walling of DATCP, Verliant Energy, Energy Law Wisconsin, UW Madison Biological Systems Engineering Faculty, and an extensive array of UWEX specialists.

The REOP's goals are to develop regional renewable energy strategies and identify opportunities to accommodate the changing energy market environment and assess the Region's broad energy picture. The goal of these activities is to develop community infrastructure that builds local demand and grows markets for clean energy enterprises, generating new energy jobs in Southwestern Wisconsin. The specific strategic objectives are:

- Promote more renewable energy use in Southwestern Wisconsin to enhance the region's economic competitiveness.
- Increase the use of renewable energy resources to develop alternative transportation fuels, electricity, and heat.
- Build the local energy production industry and improve energy reliability to enhance job creation, develop new and existing industries, and encourage entrepreneurial opportunities and investment.

Clusters of agricultural businesses that would use farm-scale energy efficiency/renewable energy technology would show opportunities for supply chain development focused on manufacturing these technologies and their component parts. Further, incorporation of innovative technologies such as farm sources of renewable energy can support sustainable economic growth and provide a competitive advantage to the Pecatonica River region. For example, in order to have adequate wind speed potential, a 6.5 megawatts/second threshold is needed. Lafayette County has been recognized as suitable location for wind farms due to its proximity of military ridge. Depending on the number of wind towers, each tower can generate between 2 and 8 jobs through construction workers and additional jobs in supporting service industries over the lifetime of the project. It also helps make rural lands more viable by allowing non-farm income opportunities on farmland. In addition, technological advances have increased the feasibility of small-scale wind generators. Area farms, businesses, rural homes, and existing community facilities, such school districts property would be candidates.



1. State the goals of the proposed AEA for the preservation of agricultural land use:

- To support Multi-generational farming by alleviating pressure with high and variable start-up farming costs for younger generations looking to develop agriculture
- To keep the rural subdivision in order to protect the historic and cultural character of the landscape
- To encourage diversity of farming practices, program use and diversity of land management
- To provide an added layer to the comprehensive plan and continue the dialogue around local land use
- To protect against development pressures down the road from Dane, Iowa and Green counties

2. State the specific goals for agricultural development and/or innovation:

- Attract small scale cottage agricultural industries
- Entrepreneurship technical training to retool local workers for emerging professions in bio-products and foodrelated industries
- Expanded market development for local food processing
- New product development and market expansion for locally produced, locally branded foods
- New product research and development in corn and soybean based products for non-food, bio-industrial products
- Project potential for energy efficiency and renewable energy technologies leading to economic sector growth on farm operations and rural areas
- Demonstration projects related to innovative, sustainable practices for watershed management, conservation practices

Based on the goals of the SW Lead Mine Region AEA and the regional opportunities illustrated, the next steps collaboratively would be to:

- Identify and pursue federal, state, and other funding to advance these opportunities
- Collaborate with UW-Platteville and Southwest Wisconsin Technical College to develop curriculum and training opportunities to advance entrepreneurship and technical skills in food and bio-product production, processing, and energy. Also to continue building relationships with research/ development expertise with alternative energy development
- Participate in a region-wide effort to identify the comprehensive set of regional assets in food production and processing, bio-products, and alternative energy to further shape and develop opportunities
- Continued public outreach with the SW Lead Mine Region AEA petitioners and advisory group leading the way in these discussions

These goals are supported in the public priorities of the county's comprehensive plan as shown below: ¹⁰

Quality of Life

28%	Agriculture	26%	Near job (employment opportunity)
2%	Appearance of homes	6%	Property taxes
4%	Community Services	12%	Quality of Neighborhood
20%	Cost of home	20%	Quality of schools
2%	Historical significance	6%	Recreational opportunities
19%	Low crime rate	51%	Small town atmosphere
23%	Natural beauty	59%	Near family or friends
8%	Other	14%	No response

10 Southwest Wisconsin Regional Planning Commission, "Lafayette County Comprehensive Plan," adopted 2007 http://www.swwrpc.org/complan/lafayette/county.php



3. Comment on the relationship between the areas goals for agricultural preservation and agricultural development:

Current Agricultural Economic Impacts

Dairy production and subsequent cheese processing are the major agricultural sectors that affect the county's economy (see figure on next page).¹¹ Located in southwestern Wisconsin, Lafayette County is ideal for dairies because of its access to cheese processing plants, numerous large pastures and good soil. Eight cheese manufacturers are located in the county with dairies additionally contracting milk out to surrounding cheese plants in neighboring counties. Specialty cheese makers have located in the area because of the quality of milk available including premiere goat cheese producer Montchevre and the world's #2 ranked cheese producer Lactalis (both located in Belmont, Lafayette County). Dairy is a key industry in Lafayette County. On-farm milk production generates \$126.6 million in business sales. Processing milk into dairy products accounts for another \$543.1 million.

- 13 plants process dairy products in Lafayette County with 9 cheese plants located directly in the county
- On farm milk production accounts for 759 jobs and dairy processing accounts for 1501 jobs
- At the county level, each dairy cow generates
 \$3,571 in on farm sales to producers
- At the state level, each dairy cow generates about \$21,000 in total sales (combined effect of direct, indirect and induced)



(Photo Credits: Roger Lange, LCD)

Lafayette County is also No. 2 in sheep and goat production and is looking to build its potential to ethnic markets in urban areas as well as sheep and goat cheese whose markets are burgeoning and reflect high market values. The county ranks No. 4 in swine production as well as in cattle and calves is first in the number of bee colonies, third in alfalfa hay production and fourth in corn for grain. Horticulture sales of trees, fruits, vegetables, greenhouse house, nursery, and floriculture products add up to \$1.2 million.

Income generated by Agriculture						
Sales tax	\$4.1 million					
Property tax	\$5.4 million					
Income Tax	\$1.6 million					
Other	\$8.8 million					
Jobs	3,560 Jobs					
Business Sales	\$841 million					
County Income	\$215 million					

With the growing number of Amish and CSA owners, these local farmers sell directly to consumers through roadside stands, farmers markets, auctions, and pick your own operations which in all add about \$147,000 in direct-marketing sales.

Lafayette County has about 1340 farms, 11% more than a decade ago with the average farm size of 255 acres with ownership still staying at the locally owned level (see figure 14 on next page).¹² Agriculture provides 54% of the county's workforce that stays within the county. Jobs include farm owners, and managers, farm employees, veterinarians, crop and livestock consultants, feed, fuel, and other crop input suppliers, farm machinery dealers, barn builders, agricultural lenders and other professionals to name a few. It also includes

11 Mark Drabenstott 2009 .: Weighing the Strategic Options for RiverLands: High Location Quotients."

RUPRI Center for Regional Competitiveness <u>http://www.swwrpc.org/Ag%20Investment%20Roundtable%205%2009.pdf</u> 12 Deller, Steven, 2011.Lafayette County Agriculture :Value &Economic Impact." University of Wisconsin Cooperative Extension http://www.uwex.edu/ces/ag/wisag/documents/agimpactbrochLafayetteCoFINAL.pdf



those employed in food processing and other value added industries. Every job in agriculture generates an Additional 65 jobs in the county.¹³ Agriculture equals about 85% of the county's total business sales. Every

dollar of sales from agricultural products generates an additional \$.37 of business sales in other parts of the county's economy (see chart below on Income Generated by Agriculture)

- Direct effect of Agriculture equals \$611.9 million and includes the sale of farm products, processed and other value added products
- Purchases of agricultural and food processing inputs, services and equipment add another 212.4 million in business sales. For example, this includes business to business purchases of fuel,



Source: USDA, U.S. Census of Agriculture, 2007

seed, and fertilizer, feed, and farm machinery, as well as vet services, crop and livestock consultants and financial services

• Business to business activity then generates another \$16.3 million in sales when people who work in agricultural related businesses spend their earnings in the local economy and utilize supporting service industries. (See chart at right detailing the county's top commodity's)

Lafayette County's Top Commodities	(sales by dollar value, 2007)
Milk	\$100.6 million
Grains	\$67.4 million
Cattle & Calves	\$38.3 million
Hogs& Pigs	\$6.3 million
Other crops & Hay	\$2.4 million

The following graph provided by SWWRPC illustrates the density of agricultural businesses in the region and thus the trend for how the proposed Southwest Lead Mine Region AEA is well positioned in the regional agricultural network.



 $13 \ Deller, Steven, 2011. Lafayette \ County \ Agriculture: Value \ \& Economic \ Impact." University of Wisconsin \ Cooperative \ Extension \ http://www.uwex.edu/ces/ag/wisag/documents/agimpactbrochLafayetteCoFINAL.pdf$

LAFAYETTE COUNTY, WI



<mark>2013</mark>

Historic Agricultural Trends

Below are how historically, the region has remained primarily agricultural based and continues to do so¹⁴:

Table 3.1.2 (Cont.) Trends in Farm	Numbers 1987 - 2002
------------------------------------	---------------------

Lafayette County	1959	1968	1978	1987	1992	1997	2002
Number of Farms by size – 500 to	NA	NA	NA	128	126	112	103
999 acres							
Number of Farms by size – 1000	NA	NA	NA	34	39	48	57
acres or more							
Total Cropland (farms)	NA	NA	NA	1256	1143	1014	1029
Total cropland (acres)	NA	NA	NA	294,200	282,410	262,873	264,340

(Source: 1959 – 1978, Assessors Farm Statistics, WIDATCP, 1987, 1992, 1997, 2002, US Census of Agriculture)

Table 3.1.3 Trends in Dairy farm 1987 – 2002

Lafayette County	1959	1968	1978	1987	1992	1997	2002	
Milk Cows (farms)	NA	NA	NA	752	468	490	353	
Milk Cows (number)	39,927	40,556	38,456	44,054	39,947	33,830	30,090	(Sou

ce: 1959 - 1978, Assessors Farm Statistics, WIDATCP, 1987, 1992, 1997, 2002, US Census of Agriculture)

Table 3.1.3 shows clearly that both the number dairy farms and dairy cows in Lafayette County dropped dramatically (53% and 32% respectively) between 1987 - 2002.

Table 3.1.4 Trends in Farm Products 1959 - 2002

Crops (Acres Harvested)	1959	1968	1978	1987	1992	1997	2002
Alfalfa Hay	64,540	74,716	83,652	67,000	56,300	45,800	41,500
All Other hay/All Hay (Dry)	3,762	1,109	1,419	72,000	58,500	50,300	45,200
All Field Corn	82,761	89,340	126,223	99,400	109,000	102,900	99,900
Oats for Grain	44,054	34,276	23,532	15,600	10,400	6,500	4,900
Soybeans	42	426	3,484	5,000	16,900	43,100	57,600
Corn Silage	7,810	10,584	14,377	13,500	19,700	14,200	13,900
Hay Silage	1,560	11,398	NA	NA	NA	NA	NA

(Source: 1959 - 1978, Assessors Farm Statistics, WIDATCP, 1987, 1992, 1997, 2002, US Census of Agriculture)

Table 3.1.4 shows crop trends in Lafayette County over the 43 year period. Soybeans show an incredible increase since 1959 while Oats for Grain acres have dropped 88%. All field Corn acres have stayed fairly stable with a spike in acres in 1978.

As required by the comprehensive planning process, statistics and graphs of land sales information are included on the next page. Unfortunately, the data does not document land sales at the town level, nor is it as current as one would like. However, despite these limitations, it is clear from Table 3.1.5 (next page) that the value of land (both Ag and land sold for non-Ag uses) has been rising and for some time, too. This trend of the last decade is no doubt continuing and therefore it is likely to affect future efforts by farmers to compete for the land base needed to remain in agriculture.

LAFAYETTE COUNTY, WI

	Agricultural land continuing in agricultural use									
	1999 2000 2001 2002 2003									
# of transactions	54	51	43	59	58	61				
Acres sold	7,986	7,033	7,370	8,521	6,687	7,803				
Dollars per acre	\$1,609	\$1,727	\$1,933	\$2,157	\$2,285	\$2,916				
		Agricultural	land diverted to ot	her uses						
# of transactions	19	17	19	23	1	1				
Acres sold	1,070	951	1,204	1,740	57	16				
Dollars per acre	\$1,862	\$1,799	\$1,787	\$2,150	\$2,600	\$2,800				
			Totals							
# of transactions	73	68	62	82	59	62				
Acres sold	9,056	7,984	8,574	10,261	6,744	7,819				
Dollars per acre	\$1,639	\$1,735	\$1,912	\$2,156	\$2,287	\$2,916				

Table 3.1.5 Lafayette County Agricultural Land Sales: Total Agricultural Land

Each township has a different philosophy and approach to working with Lafayette County. Agriculture is changing rapidly and it is likely to continue to do so. It appears that the future will include three types of operations: larger commodity producers, niche/specialty producers, and life-style farming operations. In the past, the commodity producers were dominant, but this is changing as traditional dairy producers and older farmers are leaving the business and other types of farming and agricultural land-uses are being encouraged.

Natural and Cultural Resource

Your selections are: Essential(E), Very Important (VI), Important (I), Not Important (NI), Not Applicable (NA), and No Response (NR).

4.	How important is it to protect the following.	E	VI	Ι	NI	NA	NR
a.	Air Quality	49%	33%	15%	1%	1%	2%
b.	Farmland	45%	35%	15%	2%	1%	2%
c.	Forested lands	35%	35%	24%	2%	1%	2%
d.	Groundwater	58%	29%	10%	1%	0%	2%
e.	Historic and cultural sites	16%	30%	41%	9%	1%	3%
f.	Open space	25%	28%	35%	6%	1%	5%
g.	Rivers and streams	45%	33%	19%	1%	0%	2%
h.	Rural character	29%	33%	29%	4%	1%	4%
i.	Scenic views and undeveloped hills/bluffs	29%	29%	30%	8%	1%	3%
j.	Wetlands	28%	25%	32%	9%	2%	4%
k.	Wildlife habitat	32%	30%	28%	5%	1%	4%

SWWRPC, 2007. Lafayette County Comprehensive Plan, Land use section, http://www.swwrpc.org/complan/lafayette.php

23

4a. Describe all current land uses within the proposed AEA

Type of	No. of Farmers
Farming	in Proposed
	AEA (overlap)
Crops	307
Timber	20
Livestock	49
Horses	2
Dairy	59
Specialty	5
CRP	23

Land Use in Gratiot Township

Table 8.1 Town of Gratiot Land Use - 2006

Classification	Land in Acres	Parcel Count	Average Parcel Size	Percent of Land Area
Residential	204	111	1.8	1%
Commercial	22	11	2.0	0%
Manufacturing	0	0	0.0	0%
Agricultural	31	1071	29.0	94%
Undeveloped				
(formerly	795	665	1.2	2%
AG-Forest	612	88	7.0	2%
Forest	86	14	6.1	0%
Other (Federal,				
State,	279	196	1.4	1%
Real Estate Totals	33	2156		100%

Source: WI Department of Revenue, 2006 Statement of Assessments)



(Source: WI Department of Revenue, 2006 Statement of Assessments)



Land Use in Monticello Township

Table 8.1 Town of Monticello Land Use - 2005

Classification	Land in Acres	Parcel Count	Average Parcel Size	Percent of Land Area
Residential	26	18	1.3	0.2%
Commercial	0	0	0.0	0.0%
Manufacturing	0	0	0.0	0.0%
Agricultural	11334	358	32.0	93.0%
Undeveloped (formerly Swamp/Waste)	518	234	2.4	4.2%
AG-Forest	183	50	4.3	1.5%
Forest	21	2	3.8	0.2%
Other (Federal, State,				
County, School, Cemetery)	109	67	1.7	0.9%
Real Estate Totals	12191	729		100.0%

(Source: WI Department of Revenue, 2005 Statement of Assessments)

Table 8.4 Town of Monticello Land Use Assessment Statistics - 1988

Classification	1988 Total Acres	1988 Parcel Count	1988 Percent of Land Area (Acres)
Residential	13	11	0.1%
Commercial	0	0	0.0%
Manufacturing	0	0	0.0%
Agricultural	12051	335	97.1%
Undeveloped (formerly Swamp/Waste)	0	0	0.0%
AG-Forest	0	0	0.0%
Forest	342	40	2.8%
Other (Federal, State, County, School, etc.)	0	0	0.0%
Real Estate Totals	12406	386	100.0%

(Source: WIDOR, 1988 Statistical Report of Property Values)



Table 8.5 Town of Monticello Land Use Assessment Statistics - 1993

Classification	1993 Total Acres	1993 Parcel Count	1993 Percent of Land Area (Acres)
Residential	20	14	0.2%
Commercial	0	0	0.0%
Manufacturing	0	0	0.0%
Agricultural	12045	337	97.1%
Undeveloped (formerly Swamp/Waste)	0	0	0.0%
AG-Forest	0	0	0.0%
Forest	342	40	2.8%
Other (Federal, State, County, School, etc.)	0	0	0.0%
Real Estate Totals	12407	391	100.0%

(Source: WIDOR, 1993 Statistical Report of Property Values)



⁽Source: WI Department of Revenue, 2006 Statement of Assessments)

LAFAYETTE COUNTY, WI





Land Use in Shullsburg Township

Table 8.1 Town of Shullsburg Land Use - 2006

Classification	Land in Acres	Parcel Count	Average Parcel Size	Percent of Land Area
Residential	200	91	2.2	1%
Commercial	63	16	3.9	0%
Manufacturing	0	0	0.0	0%
Agricultural	19987	670	29.8	90%
Undeveloped (formerly				
Swamp/Waste)	952	437	2.2	4%
AG-Forest	663	101	6.6	3%
Forest	42	10	4.2	0%
Other (Federal, State,				
County, School, Cemetery)	240	98	2.4	1%
Real Estate Totals	22147	1423		100%

(Source: WI Department of Revenue, 2004 Statement of Assessments)

Table 8.3 Town of Shullsburg Land Use Assessment Statistics - 1988

Classification	1988 Total Acres	1988 Parcel Count	1988 Percent of Land Area (Acres)
Residential	55	35	0%
Commercial	23	11	0%
Manufacturing	0	0	0%
Agricultural	21492	628	97%
Undeveloped (formerly Swamp/Waste)	118	23	1%
AG-Forest	0	0	0%
Forest	518	60	2%
Other (Federal, State, County, School, etc.)	0	0	0%
Real Estate Totals	22206	757	100%

(Source: WIDOR, 1988 Statistical Report of Property Values)

Table 8.4 Town of Shullsburg Land Use Assessment Statistics - 1993

Classification	1993 Total Acres	1993 Parcel Count	1993 Percent of Land Area (Acres)
Residential	70	42	0%
Commercial	23	11	0%
Manufacturing	0	0	0%
Agricultural	21473	643	97%
Undeveloped (formerly Swamp/Waste)	118	23	1%
AG-Forest	0	0	0%
Forest	513	60	2%
Other (Federal, State, County, School, etc.)	0	0	0%
Real Estate Totals	22197	779	100%

(Source: WIDOR, 1993 Statistical Report of Property Values)



(Source: WI Department of Revenue, 2006 Statement of Assessments)

LAFAYETTE COUNTY, WI

Land Use in Wiota Township

Table 8.1 Town of Wiota Land Use – 2006

Classification	Land in Acres	Parcel Count	Average Parcel Size	Percent of Land Area
Residential	281	224	1.3	1%
Commercial	33	27	1.2	0%
Manufacturing	2	2	1.0	0%
Agricultural	27475	1074	25.6	85%
Undeveloped (formerly				
Swamp/Waste)	1800	747	2.4	6%
AG-Forest	1806	241	7.5	6%
Forest	359	44	8.2	1%
Other (Federal, State,				
County, School, Cemetery)	584	218	2.7	2%
Real Estate Totals	32340	2577		100%

(Source: WI Department of Revenue, 2004 Statement of Assessments)

Table 8.3 Town of Wiota Land Use Assessment Statistics - 1988

Classification	1988 Total Acres	1988 Parcel Count	1988 Percent of Land Area (Acres)
Residential	106	143	0.3%
Commercial	23	30	0.1%
Manufacturing	2	3	0.0%
Agricultural	31086	1011	94.1%
Undeveloped (formerly Swamp/Waste)	458	74	1.4%
AG-Forest	0	0	0.0%
Forest	1351	147	4.1%
Other (Federal, State, County, School, etc.)	0	0	0.0%
Real Estate Totals	33026	1408	100.0%

(Source: WIDOR, 1988 Statistical Report of Property Values)

Table 8.6 Town of Wiota Land Use Assessment Statistics - 2004

Classification	2004 Total Acres	2004 Parcel Count	2004 Percent of Land Area (Acres)
Residential	254	217	0.8%
Commercial	35	27	0.1%
Manufacturing	2	2	0.0%
Agricultural	27628	1053	85.3%
Undeveloped (formerly Swamp/Waste)	1729	719	5.3%
AG-Forest	394	0	1.2%
Forest	1766	282	5.5%
Other (Federal, State, County, School, etc.)	584	220	1.8%
Real Estate Totals	32392	2520	100.0%

(Source: WIDOR, 2003 Statement of Assessments)







2013

LAFAYETTE COUNTY, WI

The preceding maps were taken from the National Agricultural Statistical Service for Wisconsin for land cover for Lafayette County. (A full map is provided in the appendix and digitally) All previously provided existing land use maps were cited in each of the township comprehensive plans under the land use section and created by Lafayette County Land Records and Southwest Regional Planning Commission. To access them online please follow the provided links: Gratiot: http://www.swwrpc.org/complan/lafayette/town-of-gratiot.php Monticello: http://www.swwrpc.org/complan/lafayette/town-of-monticello.php Shullsburg: http://www.swwrpc.org/complan/lafayette/town-of-shullsburg.php Wiota: http://www.swwrpc.org/complan/lafayette/town-of-wiota.php

The proposed Southwest Lead Mine Region AEA has a total acreage of 102,325 acres of which 32,995 acres (32.25%) is held by signed petitioners. Additionally based on the county's soils and flooding frequency along with its steeper slopes (these maps are provided in the appendix for further desired reference), it is clear that this unglaciated portion of the state has physical development limitations but is exceptionally suited for agricultural pursuits. Additionally any development is subject to review and must conform to the comprehensive plans adopted by the townships. Lastly, historic land use assessment statistics illustrate not only the past use of the land being primarily dominated by agriculture but also local feedback showing the preference for continuing this trend.

4b. Provide information about land use trends in and around the AEA.



The approximate land use for Lafayette County based on the 2006 report from the Department of Revenue is:

- Agriculture 86% (blue)
- Sewer & Water 5% (green & orange)
- Ag Forest 4% (Red)
- The remaining 1%: Residential, Commercial, and other (light blue & white)

Table 8.2 Lafayette County Land Use Assessment Statistics - 1975

	1975	1975	1975
Classification	Total	Parcel	Percent of land
	Acres	Count	Area (Acres)
Residential	986	3129	0.3%
Commercial	326	339	0.1%
Manufacturing	0	0	0.0%
Agricultural	331638	10099	97.7%
Undeveloped (formerly Swamp/Waste)	3074	424	0.9%
AG- Forest	0	0	0.0%
Forest	3514	257	1.0%
Other (Federal, State, County, School, etc.)	0	0	0.0%
Real Estate Totals	339538	13181	100.0%

(Source: WIDOR, 1977 Statistical Report of Property Values)

Table 8.6 Lafayette County Land Use Assessment Statistics - 2003

Classification	2003 Total Acres	2003 Parcel Count	2003 Percent of land Area (Acres)
Residential	3910	4738	1.0%
Commercial	1016	673	0.3%
Manufacturing	92	33	0.0%
Agricultural	337057	12324	87.6%
Undeveloped (formerly Swamp/Waste)	19278	7000	5.0%
AG- Forest	0	0	0.0%
Forest	18588	02318	4.8%
Other (Federal, State, County, School, etc.)	4661	2290	1.2%
Real Estate Totals	384622	29376	100.0%

(Source: WIDOR, 2003 Statement of Assessments)



		SA	A	D	SD	NO	NR
11.	Productive agricultural land should be allowed to be used for:						
a.	Agricultural use	73%	18%	1%	0%	1%	7%
b.	Residential use	6%	28%	31%	15%	4%	16%
c.	Commercial use	7%	24%	31%	18%	4%	16%
d.	Any use	8%	9%	30%	28%	9%	16%
12.	Large Scale Farms(300 or more animal units) should be allowed to expand:						
a.	Anywhere in Lafayette County	10%	18%	28%	20%	4%	20%
b.	Nowhere in Lafayette County	11%	11%	32%	17%	7%	22%
c.	Outside a two mile radius of incorporated areas	23%	35%	12%	9%	6%	15%
13.	Landowners should be allowed to develop land anyway they want.	13%	20%	41%	18%	3%	5%
14.	The visual impacts (view of the landscape is an important consideration when evaluating proposed developments).	28%	52%	8%	2%	5%	5%
15.	It is important to require driveways that will meet standards for providing emergency services.	37%	49%	5%	2%	3%	4%
16.	There should be a minimum lot size on residential development in rural areas.	26%	41%	18%	5%	6%	4%

The rating selections for questions 11-16 are Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD), No Opinion (NO), and No Response (NR).

5. How did you determine the boundary (location and size) of the proposed AEA?

When the petition was submitted the first time in 2011 as the Apple River AEA, one of the problems was that the area pursued was too small, that the boundaries were too irregular, and the need to understand the context for greater agricultural development. This year when the advisory committee met again, the number of other landowners aware of the program and interested had increased. From there several townships discussed collaboration and 4 townships stepped forward to move ahead in this direction. While others expressed interest, there was no formal step made and thus the 4 continued by forming an advisory committee in conjunction with Land Conservation and University Extension. In designating the boundary, the decision was to include the entire townships of Gratiot, Monticello, Shullsburg, and Wiota. This simplified drawing the boundaries and included the majority of landowners signed up for the AEA from others expressing interest to become part of the AEA. As a result, we drew the boundaries of the AEA large enough that those in who wanted to be included would not have to file a new petition later for an addition to the AEA. (Most of the gaps in the AEA occur because the parcels were not in agricultural use or petitioners could not be reached to be included in the AEA) The purpose of the working lands initiative program is to promote agriculture, and this conversation certainly included non-petitioner support of local businesses. Farming infrastructure includes businesses and services that feed mills, equipment vendors, cheese factories, seed dealers, or veterinarians might supply. Farm supply businesses and food processing facilities represent important resources to area farmers as well as the broader local economy. Next a series of open houses were conducted to determine the type of interest participating landowners had with their agricultural enterprises to see what kind of connections could be forged and networks created. The advisory committee then met with landowners one on one along with area businesses to discuss the intent of the Southwest Lead Mine Region AEA and gather petitioner support. From there the goals arose (see question 1), given the historic and cultural nature of the area and county, along with the current economic impacts that agriculture provides, the Southwest Lead Mine Region AEA is a natural stepping stone towards added growth in emerging agricultural, energy, economic industries while fostering the next generation in its cultural roots.

Southwest Wisconsin is a unique location whose identity to agriculture extends back both historically and culturally. Historically this has been the point of beginnings for the state with the first state capital located in Belmont, Lafayette County. The region drew a great number of Swiss, Norwegian and Swedish who began the rich tradition of cheese making which has built one of the largest concentrations of cheese producers in the state. Also the unglaciated region and rich loess of the Mississippi Driftless area has made the area a fertile river valley that consistently allows farmers high yields of production. The farming heritage has cultivated a new growing population of Hispanic immigrants who work primarily in the dairy industry who choose to come to rural areas because they too hail from rural areas of Mexico and Central America. Another growing population is Old Order Amish who hail specifically from the Lancaster Pennsylvania area. Farming is ideal for the Amish way of life and due to development pressures in Pennsylvania and combined with low land prices that have high nutrient fertility, Amish numbers are growing in the region. Thus the culture is one that

continues to be of a pioneering spirit as the region is still considered to be "remote rural" and thus fiercely proud of its independence.

In 2012, the state of Wisconsin approved the Pecatonica AEA, the first in Southwestern Wisconsin. The new proposed Southwest Lead Mine Region AEA borders last year's designated Pecatonica AEA. Of the AEAs granted, only 5 are truly considered "rural" with most facing aspects of development pressures. (The Following two figures are comparing the locations of current AEAs in respect to relative rurality.)



6. Confirm that the proposed AEA is consistent with any existing local comprehensive plan.

- The proposed Southwest Lead Mine Region AEA is consistent with Lafayette County's Comprehensive Plan.
- The Towns of : Gratiot, Monticello, Shullsburg, and Wiota have comprehensive plans and the proposed AEA is consistent with this plan.

Below is an example of the rural subdivision which illustrates the public interest in keeping open land for farming uses. Also the townships of Gratiot, Monticello, Shullsburg, and Wiota have taken steps to identify agricultural specific elements is to present agricultural data and provide direction for land use decisions influencing agriculture for the next 20 years. This is identified in each townships vision statement, agricultural, land-use policies as well as their future landuse maps from their comprehensive plans.

Would you prefer housing built in a traditional design (Option A), or a cluster design (Option B)?





Table 1.8.1 2005 Community Survey of Land use

	Gratiot	Monticello	Shullsburg	Wiota
Option A	28	8	38	29
Option B	49	50	40	57
No Response	23	42	22	14

32



Gratiot:

Table 3.1.3g Agricultural Resources Policies - Town of Gratiot

Gratiot

- 1. Encourage educational programs about the importance of agricultural resources for local residents.
- 2. Encourage the keeping of land in productive farm operations or land capable of productive agricultural uses, while exploring and encouraging innovative methods of preserving land for agriculture.

2013

- 3. Give new residents a copy of the 'Partners in Rural Wisconsin' booklet outlining the traditional community norms and expectations for rural residents.
- 4. Emphasize the preservation of the environmental quality and rural and agricultural character of the jurisdiction when considering future land use proposals, while encouraging the maintenance of the rural and agricultural character of the community.
- 5. Encourage the preservation of the family farm and farmland in the community.
- 6. Encourage the preservation of agricultural fields in the community from encroachment by incompatible development.
- 7. Encourage all rural landowners to become cooperators with the Lafayette County Land Conservation Department (LCD) and to implement conservation plans worked out between landowners and the LCD.
- 8. Encourage proper separation distances between urban and rural land uses to avoid conflicts.
- 9. Encourage residential, commercial, and industrial development to areas least suited for agricultural purposes.
- 10. Discourage isolated non-agricultural commercial and industrial uses in agricultural areas, except for agricultural businesses and home based businesses.
- 11. Maintain the agricultural infrastructure (i.e. roads) to support agricultural operations.
- 12. Utilize county, state, and federal programs or grants to conserve, maintain, and protect agricultural resources, where and when appropriate.
- 13. Rezoning of agricultural land will take all the agricultural policies in this Plan into consideration.
- 14. Encourage new agricultural supply or service uses to locate in areas where they can economically and efficiently serve the farm community.

Table 1.8g Vision Statement - Town of Gratiot

Gratiot

In the year 2025, the Town of Gratiot is envisioned as a largely rural community with residential areas carefully placed amid farmlands, riverside, woodlands, and hills

Town government, local citizens and landowners have collaborated to provide leadership and commitment that preserves its productive farmland and productive woodlands to keep the small town feel and rural quality of life.

For future reality town officials will need to work with citizens, local farmers, developers, and others to share this vision and promote projects that embody it.

Table 8.3.1g Land Use Policies - Town of Gratiot

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- 1. Approve developments that maintain the small-town character of the jurisdiction.
- 2. Encourage new development to be harmonious with the surrounding natural landscape.
- 3. Support land uses, densities, and regulations that result in efficient development patterns.
- 4. Recognize the critical role that farmland, open space, historical architecture, scenic vistas, land-and riverscapes, natural resources and designated features, scenic roads, archeological, and cultural features play in defining and enhancing the community's distinctive rural character.
- 5. Encourage the protection of active agricultural lands and forestry in the community as this land use helps realize the vision for the future.
- 6. Encourage the protection of agricultural fields in the community from encroachment by incompatible development (limiting crop field fragmentation).
- 7. Encourage the preservation of green space and environmentally sensitive areas.
- 8. Development including roadways, driveways, and buildings on steep slopes should be avoided to minimize soil erosion.
- 9. Recognize that sensitive environmental features such as lowlands, floodplains, wetlands, and steep slopes are extremely important in helping to define the distinctive character and scenic beauty of the community.
- 10. Recognize that ridge tops are important groundwater recharge areas. Concentrated sources of pollution such as landfills and truck yards will not be allowed in these areas.
- 11. Recognize that while flat valley bottoms are often the most desirable areas for new development, these areas frequently contain highly productive and irreplaceable agricultural soils. Care must be taken to ensure that development occurs on the least productive valley soils.
- 12. The community will require all proposed public recreational development to conform to all of the policies in this Comprehensive Plan, particularly those aimed at protecting the agricultural character and farm vitality of the community.

- 13. Discourage new development from areas shown to be unsafe or unsuitable for development due to natural hazards or contamination, unless these sites can be remediated to an acceptable condition.
- 14. For new development in the community, surface water run-off shall be minimized and detained on site if possible or practicable. If it is not possible to detain water on site, down stream improvements to the channel may be required of the developer to prevent flooding caused by the project. The natural state of watercourses, swales, floodways, wetlands, or right-of-way should be maintained as nearly as possible.
- 15. Encourage the use of conservation neighborhood design strategies for rural residential development in appropriate areas.
- 16. Encourage commercial activities to develop in existing commercial locations where public roads/facilities and services have capacity to accommodate high volumes of traffic, parking, and other public needs.



Monticello:

Table 1.8m Vision Statement Monticello

- Rural, agricultural area maintained in large contiguous tracts.
- Keep an agriculture setting, housing minimal.
- Preserve Town Hall, cemeteries, burr oaks.

 Table 3.1.3 Agricultural Resources Policies – Town of Monticello

Monticello

1.Maintain land in productive farm operations or land capable of productive agricultural uses, while exploring and encouraging innovative methods of preserving land for agriculture.

2013

- 2. Place all Town of Monticello lands in productive farm operations in the Exclusive Agricultural Zone (A-1), within which farming is the principle and preferred land use.
- 3. Maintain the rural and agricultural character of the community.
- 4. Emphasize the preservation of the environmental quality and rural character of the jurisdiction when considering future land use proposals.
- 5. Encourage the preservation of the family farm and farmland in the community.
- 6. Preserve agricultural fields in the community from encroachment by incompatible development.
- 7. Encourage all rural landowners to become cooperators with the Lafayette County Land Conservation Department (LCD) and to implement conservation plans worked out between landowners and the LCD.
- 8. Discourage isolated non-agricultural commercial and industrial uses in agricultural areas, except for agricultural businesses and home based businesses.
- 9. Maintain the agricultural infrastructure to support agricultural operations.
- 10. Encourage the location of rural non-farm land uses on soils and sites judged to be of relatively low value for agricultural purposes.
- 11. Utilize county, state, and federal programs or grants to conserve, maintain, and protect agricultural resources, where and when appropriate.
- 12. Encourage new agricultural supply or service uses to locate in areas where they can economically and efficiently serve the farm community.

Table 8.3.1 Land Use Policies - Town of Monticello

Monticello

- 1. Maintain the small-town character of the jurisdiction by avoiding developments that would alter its character.
- 2. Encourage new development to be harmonious with the surrounding natural landscape.
- **3.** Recognize the critical role that farmland, open space, historical architecture, scenic vistas, land and river scapes, natural resources and designated features, scenic roads, archeological, and cultural features play in defining and enhancing the community's distinctive rural character.
- 4. Protect active agricultural lands and forestry in the community as this land use helps realize the vision for the future.
- 5. Preserve agricultural fields in the community from encroachment by incompatible development (Limit fragmentation of crop fields).
- 6. Encourage the preservation of green space and environmentally sensitive areas.
- 7. Development including roadways, driveways, and buildings on steep slopes should be avoided to minimize soil erosion.
- 8. Recognize that sensitive environmental features such as lowlands, floodplains, wetlands, and steep slopes are extremely important in helping to define the distinctive character and scenic beauty of the community.
- 9. Recognize that ridge tops are important groundwater recharge areas. Concentrated sources of pollution such as landfills and truck yards will not be allowed in these areas.
- **10.** Recognize that while flat valley bottoms are often the most desirable areas for new development, these areas frequently contain highly productive agricultural soils.
- 11. Building placement and lot layout should be designed to provide a functional relationship to the site's topography, existing vegetation, and other natural features.
- 12. The community will require all proposed public recreational development to conform to all of the policies in this Comprehensive Plan, particularly those aimed at protecting the agricultural character and farm vitality of the community.
- 13. Discourage new development from areas shown to be unsafe or unsuitable for development due to natural hazards or contamination, unless these sites can be remediated to an acceptable condition.

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- 14. For new development in the community, surface water run-off shall be minimized and detained on site if possible or practicable. If it is not possible to detain water on site, down stream improvements to the channel may be required of the developer to prevent flooding caused by the project. The natural state of watercourses, swales, floodways, wetlands, or right-of-way should be maintained as nearly as possible.
- 15. Encourage development in areas where adequate utilities and community services exist or can be provided in a cost efficient manner.
- 16. Assure that the pace of development does not exceed the capacity of utilities, roads, and community facilities.



Shullsburg:

Table 1.8s Vision Statement

Shullsburg

The Town of Shullsburg intends to preserve the economy of agriculture while maintaining the family values of its rural heritage. The Town of Shullsburg intends to promote development of homes and businesses to grow.

Table 3.1.3s Agricultural Resources Policies – Town of Shullsburg

Shullsburg

- 1. Encourage the preservation of scenic, historic, and scientific areas for the benefit of present and future generations.
- 2. Encourage the education of local residents about the importance of natural resources.
- 3. Encourage the suppression and limitation of noxious weeds.
- 4. Protect major drainage corridors from development in order to aid in storm water runoff and prevent flooding.
- 5. Utilize county, state, and federal programs or grants to conserve, maintain, and protect natural resources, where and when appropriate.

Table 8.3.1s Land Use Policies - Town of Shullsburg

Shullsburg

LAFAYETTE COUNTY, WI

- 1.Recognize the critical role that farmland, open space, historical architecture, scenic vistas, land-and-river scapes, natural resources, and designated features, scenic roads, archeological, and cultural features play in defining and enhancing the community's distinctive rural character.
- 2. Encourage the preservation of agricultural fields in the community from encroachment by incompatible development (limit fragmentation of crop fields).
- 3. Development, including roadways, driveways, and buildings on steep slopes should be avoided to minimize soil erosion, disruption of important wildlife habitat, and to keep maintenance costs for foundations, roads, utilities, and waste disposal systems to a minimum.
- 4. Recognize that while flat valley bottoms are often the most desirable areas for new development these areas frequently contain highly productive and irreplaceable agricultural soils. Therefore, care must be taken to ensure that development occurs on the least productive valley soils.
- 5. The community will require all proposed public recreational development to conform to all the polices of this Comprehensive Plan, particularly those aimed at protecting the agricultural character and farm vitality of the community.
- 6. Require detailed neighborhood development plans and phasing plans prior to zoning, platting, and development of planned residential areas.



Wiota:

Table 1.8 Vision Statement – Town of Wiota

Wiota

- We envision the future Town of Wiota as a place where:
- the landscape is open, scenic, undeveloped and rural in character.
- agriculture is still conducted primarily on family farms.
- numerous active community and social organizations make the Town a lively place to live.
- the cultural, recreational and historic resources of the Town have been preserved for the enjoyment of future residents, visitors and tourists.

2013

- the educational system is diverse, strong and viable.
- young persons who have been born here are able to remain or return to this place because it is economically possible to make a decent living in the region.
- the established settlements in the town contain economically viable businesses providing basic necessities plus other wares, and which serve as meeting places for members of the community.

Table 3.1.3 Agricultural Resources Policies - Town of Wiota

Wiota

- 1.Maintain land in productive farm operations or land capable of productive agricultural uses, while exploring and encouraging innovative methods of preserving land for agriculture.
- 2. Give new residents a copy of a 'Partners in Rural Wisconsin' booklet outlining the traditional community norms and expectations for rural residents.
- 3. Maintain the rural and agricultural character of the community.
- 4. Emphasize the preservation of the environmental quality and rural character of the jurisdiction when considering future land use proposals.
- 5. Encourage the preservation of the family farm and farmland in the community.
- 6. Preserve agricultural fields in the community from encroachment by incompatible development.
- 7. Encourage all rural landowners to become cooperators with the Lafayette County Land Conservation Department (LCD) and to implement conservation plans worked out between landowners and the LCD.
- 8. Encourage proper separation distances between urban and rural land uses to avoid conflicts.
- 9. Maintain the agricultural infrastructure to support agricultural operations.
- 10. Rezoning of agricultural land will take all the agricultural policies in this Plan into consideration.

Table 8.3.1 Land Use Policies - Town of Wiota

Wiota

- 1. Maintain the small-town character of the jurisdiction by avoiding developments that would alter its character.
- 2. Encourage new development to be harmonious with the surrounding natural landscape.
- 3. Support land uses, densities, and regulations that result in efficient development patterns.
- 4. Recognize the critical role that farmland, open space, historical architecture, scenic vistas, land-and riverscapes, natural resources and designated features, scenic roads, archeological, and cultural features play in defining and enhancing the community's distinctive rural character.
- 5. Protect active agricultural lands and forestry in the community as this land use helps realize the vision for the future.
- 6. Preserve agricultural fields in the community from encroachment by incompatible development (limit fragmentation of crop fields).
- 7. Encourage the preservation of green space and environmentally sensitive areas.
- 8. Avoid disturbance to wetlands, shorelands, and floodplains and discourage disturbance to other environmentally sensitive areas and corridors.
- 9. Development including roadways, driveways, and buildings on steep slopes should be avoided to minimize soil erosion, disruption of important wildlife habitat, and to keep maintenance costs for foundations, roads, utilities, and waste disposal systems to a minimum.
- **10.** Recognize that sensitive environmental features such as lowlands, floodplains, wetlands, and steep slopes are extremely important in helping to define the distinctive character and scenic beauty of the community.
- **11.** Recognize that ridge tops are important groundwater recharge areas. Concentrated sources of pollution such as landfills and truck yards will not be allowed in these areas.
- 12. Recognize that while flat valley bottoms are often the most desirable areas for new development, these areas frequently contain highly productive and irreplaceable agricultural soils. Therefore, care must be taken to ensure that development occurs on the least productive valley soils.

- 13. Building placement and lot layout should be designed to provide a functional relationship to the site's topography, existing vegetation, and other natural features. The conservation of mature plant species, hedgerows, prairies/oak savannas, and woodlots should be encouraged to preserve the rural character of the community.
- 14. The community will require all proposed public recreational development to conform to all of the policies in this Comprehensive Plan, particularly those aimed at protecting the agricultural character and farm vitality of the community.
- 15. Discourage new development from areas shown to be unsafe or unsuitable for development due to natural hazards or contamination, unless these sites can be remediated to an acceptable condition.
- 16. For new development in the community, surface water run-off shall be minimized and detained on site if possible or practicable. If it is not possible to detain water on site, down stream improvements to the channel may be required of the developer to prevent flooding caused by the project. The natural state of watercourses, swales, floodways, wetlands, or right-of-ways should be maintained as nearly as possible.
- 17. Encourage development in areas where adequate utilities and community services exist or can be provided in a cost efficient manner.
- 18. Assure that the pace of development does not exceed the capacity of utilities, roads, and community facilities.
- **19.** Plan for a sufficient supply of developable land for a range of different uses, in areas, types, and densities consistent with service requirements.
- 20. Encourage the use of conservation neighborhood design strategies for rural residential development in appropriate areas.
- 21. Support the mixing of compatible, complimentary uses in close proximity to one another, such as small-scale neighborhood retail and service uses close to residential neighborhoods, if in accordance with community wishes.
- 22. Encourage commercial activities to develop in existing commercial locations where public roads/facilities and services have capacity to accommodate high volumes of traffic, parking, and other public needs.
- 23. Discourage heavy industrial and commercial businesses in the community.



LAFAYETTE COUNTY, WI

The Agricultural Resource Goal, one of the fourteen Smart Growth Planning Goals required by the planning grant contract states that the area must: **Protect economically productive areas, including farmland and forests**. The following agricultural resource objectives and policy recommendations support the above goal which will guide agricultural resource decisions over the next 20 years:

- 1. Encourage educational programs about the importance of agricultural resources for local residents.
- 2. Encourage the rural and agricultural character of the community.
- 3. Encourage the preservation of the family farm and farmland in the community.
- 4. Encourage prime farmland for agricultural uses.
- 5. Encourage residential, commercial, and industrial development to areas least suited for agricultural purposes.

6. Encourage new agricultural supply or service uses to locate in areas where they can economically and efficiently serve the farm community.

Based on the Agricultural Resource goals which are similar in all the township's comprehensive plans, the goals of the Southwest Lead Mine Region AEA are consistent with these goals and plans.

7. Describe any recent investments made to support agriculture and agricultural-related business in or near the proposed AEA.

Within the proposed SW Lead Mine Region AEA:

- Cottonwood Dairy LLC; Owners: Brian Larson, Randy Larson, and Jim Winn (three local dairy producers) formed in 1998. The dairy started milking 500 cows and quickly expanded to 1500 cows currently. This new milking facility is located a half mile SE of Wiota in Wiota Twp. This dairy boasts a herd average of 31,793 #/cow. The economic activity per cow is \$17,000 per year. The dairy has an 85-90% reclamation on the sand it reuses as bedding. Other Ag. investments / conservation practices installed include: a manure storage structure, 590 Nutrient Management Plan (NMP), & 3220 feet of grassed waterways. The dairy currently operates roughly 2,350 acres. This dairy facility hosted the Lafayette County Dairy breakfast in 2000. Total investment to date is roughly 6.5 million.
- Just outside of the little town of Woodford, Wisconsin (Wiota Twp) is the farming operation of Daryl & Jenny Dammen (Pictured on front cover, note mural on the barn). The Drammen's began operating this farm in April 1992 and by May of that year a diversion above the buildings was already being installed. They bought the farm in 2000. Numerous other additions have been added since then: concrete barnyard with filter strip, cattle lanes, eaves & downspouts, grasses waterways, and a 590 Nutrient Management Plan. They continued to manage the previously installed contour strips. Costly, yes, but well worth it in animal heard health and environmental safety. This family owned farm has grown to roughly 500 acres in size. In 2002, they enrolled a few of the fields into the Conservation Reserve Enhancement Program (CREP). These fields are routinely visited by Sand Hill Cranes, and other wildlife species. In 2004, they hosted a recognition day, nothing special, just a visit from the Governor, Sec. of Ag., and the heads of both FSA and the NRCS in Wisconsin; not to mention over 100+ visitors. The Dammens believe in family run agriculture and in 2003, hosted the Lafayette Co. Dairy Breakfast.
- Other large notable dairies in the area include: Wiegel Riverside Dairy, Vosberg Valley View Farms, Russell's Dairy-Go-Round, Christlaw's Clean View Acres, Thunder Branch Acres, Whitcomb Farms, and Place Farms.





Community Income per Cow				
Local Retailers	\$700			
Feed & Supplies	\$628			
Wages & benefits	\$444			
Interest	\$180			
Rent	\$156			
Equipment Dealers	\$148			
Coop Supplies	\$144			
Vet Clinic	\$112			
Consultant	\$80			
Utility Bills	\$72			
Taxes	\$36			

- Silver Creek Family Farms LLC is owned and operated by the Mike & Judy Berget Family. Built in 2002 at a cost of about 2.5 million this 1450 sow operation is located in Wiota Township (Silver Springs Watershed).
- Silver Springs Watershed (SSW) In 2012, this watershed was the focus of a partnering effort of the WI DNR, Lafayette Co. LCD, U.W. Platteville, and the USGS. A grant was obtained through the American Recovery and Reinvestment Act to begin work in the SSW to potentially remove the watershed from the 303d list of Impaired Waters. The initial work targeted Nutrient Management plans. Through Chris Baxter, UWP Professor, all landowners were offered a chance to have soil samples taken on their farms and have Nutrient Management plans developed. Staff from both USGS and the DNR began looking at the streams and the impairments.

LAFAYETTE COUNTY, WI

- Roelli Cheese Co. Inc. added a "Cheese Cave" in 2012 at a cost of about 300,000 dollars. They use this cheese cave to store their award winning specialty cheeses and allow them to age.
- Russell Bros. Ag. LLC, a soybean seed production facility, (Picture on front cover) began in 2004 and is located in Shullsburg township. This facility will clean and condition greater than 250,000 bushels of soybean seed annually. Roughly 60% of these soybeans come from the proposed AEA area. The approximate investment was 2.5 million dollars.
- Directly adjacent to Russell Bros. Ag. LLC is Carrousel Farms / Hicks Corner, Grain Elevator. In 2010 this grain elevator processed 671,000 bu. Corn and 155,000 bu. soybeans. Much of this grain was grown in this proposed AEA area.
- Seed dealers such as Jim Whalen & Steve Dower who provide seed to landowners in the area will rest a little easier knowing there is always need for the product they provide. This holds true for custom operators such as the Gratz's. They till, plant, and harvest crops for landowners. By knowing the jobs will always be there they are more willing to invest in new equipment.
- Equity Coop Livestock Sales Assoc. hold weekly sales of alfalfa hay at Hick's Corners.
- Metz Welding, another local area business relies on farmers and landowners in this area for their business success. They fix and repair agricultural equipment for local landowners.
- Silver Creek Family Farms LLC is owned and operated by the Mike & Judy Berget family. Built in 2002, this facility currently houses 1450 head of sows. Approximate cost of the facility was 2.5 million dollars.
- Rolling Hills Dairy started in 2006 with 14 dairy farm members. They have since grown to 76 farms. Their producers' milk anywhere from 20 to 750 cows in a five county area. Milk from these farms goes to 10 dairy product processors mainly in Illinois and Wisconsin. Most of the milk goes to processors making cheese who don't have their own producers. Rolling Hills contracts with three independent milk haulers to haul the milk.
- The Lower East Branch Pecatonica Watershed (LEBP) which is located along the eastern edge (Wiota Twp.) of the proposed SW Lead Mine Region AEA. Approximately 42 land-owners signed LEBP contracts for state cost share dollars to install conservation practices. This program is where the state pays for 70% with landowners paying for 30% which amounts to over half a million dollars that owners have spent on land improvements. These improvements help keep the topsoil on the uplands, manure and other pollutants out of the streams while providing stream bank stabilization and fish habitat. The cost sharing also has allowed almost \$1.5 million to stay with farmers so that money could be added towards additional improvements and be circulated in the local economy.
- In the past 10 years the Land Conservation Department has worked with roughly 15 farmers installing Ag Waste Management Systems (Concrete Barnyards) to control manure loss. Farmers have stated that this practice has increased their manure quantity 3 fold and as a result has lessened the amount of fertilizer needed.

Around the SW Lead Mine Region AEA: (some discussed earlier in greater detail in the Introduction)

- Jean Margaret Beech is a small "niche" farmer who raises sheep for both wool and meat. She markets the meat and produce she raises to local customers and retailers. When needed lambs are hauled 60 miles to a locker in Lodi where USDA inspectors are working. She has invested in apiary equipment in order to build pollinators for production of her fruit trees. She works with local bee keepers to have hives located on her farm.
- Montchevre-Betin cheese plant in Belmont is a pioneer in renewable energy generation. The plant's anaerobic digester uses byproducts from cheese processing to create energy to power the creamery and are working with the village of Belmont to partner on funding (in millions of dollars).
- Lactalis is also expanding their cheese operation (in millions of dollars)
- Mexican Cheese Factory is also expanding their cheese operation (in millions of dollars)
- Green Cheese Project in both Green and Lafayette Counties: Local Agricultural Businesses: <u>http://lafayette.uwex.edu/files/2010/05/BountiesofLafayetteCountyBrochurewithCalendar-09.pdf</u>
- S WWRPC produce study: https://sites.google.com/a/swwrpc.org/growingsouthwestwisconsin/
- SWWRPC Sustainability Planning \$525,000 for the five county region https://sites.google.com/a/swwrpc.org/project-produce/home
- The Innovation Kitchen in Mineral Point: http://www.wi.innovationkitchen.org/
- UW Platteville is expanding its base into a research University
- \$300,000 from UW Madison in partnership with SWWRPC and SW Badger RC&D to pursue Renewable Energy Development in the region including cluster studies in biogas

• Riechers Beef: Owners, Mark and Joe Riechers. This beef operation markets between 13 -1400 head per year which amounts to just shy of 2 million dollars in sales. They buy distillers grain, barley malt, and soy byproducts from local businesses to feed their animals. More recently their farm has been studied as part of the University of Wisconsin Discovery Farms participant where the whole farming system is studied. In 2012 Mark installed: a roof over his barnyard feed lot, environmental eye and a feed storage area for a total investment of roughly 100,000 dollars.

2013

- Holmesville Dairy: Owners, Tim and Penny Holmes. Tim began farming with his father in 1980. In 1989 Tim and Penny purchased 450 acres of the 650 acre farm. Over the years the Holmes have installed an impressive list of conservation practices. They include 215 acres of contour strips, grade stabilization structure, 5 grassed waterways, a crossing, 500 ft. of diversions and 2 barnyard systems. In the late 90s Tim and Penny decided to expand their operation and built a new free stall barn and milking parlor. They also installed a manure storage structure and developed a Nutrient Management plan. Their son Travis and Tim's brother Jim are involved in the operation and they have since added another free stall barn. The total expansion/ improvement costs are over \$1.8 million. Holmesville Dairy is a family run operation. Tim will pass the farm on to his children. His plan for the next 5 years will be to transition the farm to them while making continued improvements which include another free stall barn and another manure storage structure. Projected costs for the expansion would range from \$600,000 to \$700,000.
- There are 6 full and part time employees and currently 650 acres are managed with another 400 acres rented of neighboring land.
- Milk from the 400 dairy cows goes to Rolling Hills Dairy (located in the Pecatonica AEA).
- Meylor Custom Farming chops the hay, and
- Bill Smith Custom Farming combines the corn.
- This area has not 1, but 2 ethanol plants within 30 miles of this proposed AEA. Badger State Ethanol Plant of Monroe and Adkins Energy LLC of Lena have the combined need of greater than 82 million bushels of corn annually. Much of the corn grown in this proposed AEA area is shipped to these two ethanol plants. The production of ethanol requires a good supply of corn grain. Deep rich soil types abound in this area which generally produce 230+ bu./ac. corn and 65+ bu./ac. soybeans. This highly productive farm ground is the reason why many of the locals have won national awards on grain production with minimal inputs. Due to the large volume of crops being produced in the area, the railroad may expand rail service from Monroe to South Wayne to Shullsburg. Other businesses that depend on the grain from this area include Leifker Grain, Carrousel Grain, and the Mississippi River grain terminal.
- A portion of this proposed AEA drains to the south into Illinois where three very important summer destinations are located just five miles downstream. Apple River Canyon State Park, Canyon Camp, and Apple Canyon Lake are visited by thousands each year. The Apple River State Park is a 297 acre park that was purchased by the State on Illinois in 1932. Also founded in 1932 is the Blackhawk Area Council Boy Scouts of America Canyon Camp. This 283 acre camp ground is reserved 6 weeks out of the year for only Boy Scouts (roughly 2,000 each summer). Apple Canyon Lake is a 440 acre private lake with 2743 property owners around it. Currently this watershed has applied for a 319 Grant from the state of Illinois. (Please see letter of support.) What better way to help a neighboring state.
- James & Kandace Wallace have invested in solar panels and wind turbines on their farm.

8. Soil and Water Conservation

Indicate the approximate level of petitioner compliance with state soil and Water standards.

- □ Nearly all petitioners are in compliance
- ☐ More than half of the petitioners are in compliance
- Half or less than half of the petitioners are in compliance
- Few or no petitioners are in compliance
- Compliance status of petitioners is unknown

9. Describe the level of non-petitioner cooperator support for the petition.

Currently we have 4 landowners within the AEA that provided a letter of support that stated that they would not participate in the program at this time. All the necessary political subdivisions authorized the needed documentation in support of the petition. As for Non-Petitioner Cooperator Support Letters, the following list illustrates the support from area businesses both in and surrounding the AEA as well as large regional support as to the broad vision that the SW Lead Mine Region AEA is helping to unify. Attached following this petition are cooperator agreements as well as detailed letters of support from the various supporting regional institutions. Additionally, there was pledged verbal support from entities that were unable to send back the necessary documentation in time due to legal requirements or procedures.



Non-Petitioner Cooperator Support Letters

State Government Support WI State Senator Dale W Schultz WI State Representative Howard Marklein DNR Wildlife Biologist Yellowstone Area

Local Businesses McGlynn Plumbing & Pump Karen's Hair Kair Gratiot Enterprises – Gratiot Fast Stop Backyard Campground LLC Burmeister Farm & Equipment Bill Crist and Son Jerry's Automotive Gratiot Ag & Auto <u>Cheese Producers</u> Zimmerman of Wiota Roelli Cheese Co. Inc.

Agricultural Support Businesses K & L Bobcat Inc. Metz Welding Russell Bros. Ag . LLC Greg Seffrood Ag. Business By Tec Inc. Refuse Recycling

Local & Regional Governments/Organizations Apple Canyon Lake Property Owners Assoc. Village of Gratiot

Financial Institutions Gratiot State Bank

10. Fill in the tables to provide information about partners/advisors and activities in the proposed AEA.

10A. AEA Partners/Advisors

In 2011, a core of individual landowners formed an AEA called Apple River but the application was denied. The group reformed in October 2012 to resubmit an application in 2013 based on the evaluations provided by DATCP. They included the County Land Conservation and UW Extension staff along as partners to create an advisory committee.

10 B. Farmland Preservation Agreement Strategy				
Activity	Summarize future outreach efforts, including who will provide assistance			
	(use an additional page if necessary)			
☑ Informational meeting(s)	On November 14/1	5, 2012, public informational meetings were held in Gratiot and Shullsburg,		
X Mailings	respectively. These	meetings were held to promote the formation of a new Ag Enterprise Area		
I One-on-One Conversations	and were document	ed by several local newspapers. They called it the Southwest Lead Mine		
X Newsletter/media		represents the local history of the entire area. An advisory committee was		
☑ Other e-mails	formed which was made up of: local landowners, LCD, Lafyette Co. Land Records and UWEX staff. Informational meetings/updates were held from October 2012 thru March 2013. This			
		between 5-600 letters to local landowners. This letter explained the		
		ts, and asking for their support of the proposed AEA project. The core		
	group also went door tot door asking for support and explaining the program to landowners and			
	local businesses who have also pledged their support. Information about the proposed AEA was also sent out in the quartly LCD news letter.			
		C. Land Use Controls		
Type of control	Existing/Future	Provide details about the selected control		
		(use an additional page if necessary)		
Farmland preservation zoning	Existing	Lafayette County's Farmland Preservation Zoning Ordinance has been		
ordinance	& Future	adopted by Gratiot, Monticello, Shullsburg, & Wiota Townships. The		
		Farmland Preservation Ordinance is currently scheduled for review and		
	F 1 1	update in 2015.		
I Other zoning ordinances	Existing	Regulates the construction & abandonment of manure containment		
	& <i>Future</i> structures to ensure they meet the required standards of the Natural			
Specify: Animal Waste Storage				
	combined effort that includes both the Land Conservation Department and			
the Planning and Zoning Department.				

☐ Farmland preservation	Existing	MONTICELLO, SHULLSBURG, & WIOTA TOWNSHIPS 2013 There are currently three (3) Farmland Preservation Agreements in
1	0	
agreements	& Future	Shullsburg Township and two(2) Agreements in Gratiot Township.
		Numerous landowners claim WLI income tax credits under Exclusive
		Agriculture zoning in Gratiot, Monticello, Shullsburg, & Wiota Twnships
X Purchase of development	Existing	Three NRCS Conservation Reserve Enhancement Program (CREP)
rights and or easements		Perpetual Easements currently exist in the proposed AEA area.
(donated or purchased)		
Transfer of development rights	None	None at this time.
X Subdivision ordinances	Existing	Provides for a public hearing process, strict review of the development
XI SUDUIVISION OFUMANCES		standards, and rezoning procedures for new residential subdivisions. The
	& Future	
		Lafayette County Subdivision Ordinance is more restrictive than the state
		statute, reflecting the county's goal of maintaining prime agriculture land.
□ Cooperative boundry	None	None at this time.
agreements/inter-municipal		
agreements		
X Natural area protections	Existing	The Shoreland and Wetland Zoning Ordinance regulates certain activities
	& Future	along the shores of navigable rivers, lakes, and wetlands abuting these
	U 1 mm	waterways. With the goal of reducing soil erosion and topsoil loss, the
		ordinance restricts shoreland clearing of trees and vegetation up to 35'
		shoreward of the Ordinary High Water Mark.
X Other	Existing	Regulates development in mapping floodplains. Restriction of
Specify: Floodplain Zoning	& Future	development is generally limited to residences, with agriculture use
		permitted and structures accessory to agriculture permitted in portions of
		the floodplain.
I	D. Agri	icultural Development Activities
Type of Activity	Existing	Provide additional details
<i>1 ypc 0 1 1 1 y pc 0 y 1 c m y y y z z z z z z z z z z</i>	& Future	(use an additional page if necessary)
Information & Education		Continue the AEA advisory committee as an outreach and educational entity
Information & Education	Existing & Future	
· ·	& Future	to discuss the goals of the Southwest Lead Mine Region AEA
Cottonwood Dairy	Future	Beginning in 2013, Cottonwood Dairy would like to begin inviting local
(Day on the Farm)	- · · ·	community schools for a day on the farm program. Promote farm expansion,
	ı	modernization, and Farm -2- Consumer infrastructure.
Soil & Water Conservation Standards	Existing	Adopt and implement the Soil & Water Conservation Standards. A team
	& Future	effort among private landowners, LCD, DNR, DATCP, and NRCS.
Information & Education		Implement public outreach programs that inform and educate the general
Information & Education	Existing & Euturo	
	& Future	public about the goals and objectives of the Southwest Lead Mine Region
	_ _ '	AEA
Identify and apply for grant	Future	Identify and apply for grant opportunities that will be used by producers and
opportunities	'	agribusinesses to expand the agricultural economy.
Barn Quilts	Existing	Promote the painting of barn quilts which inturn promotes Agricultural
D	& Future	Tourism. A network has been established in the county with a number
		located in the Southwest Lead Mine Region AEA.
The Annual sector 14 miles	- E-isting	
Promote Agriculture	Existing	Promote the development of new agriculture business relationships among
	& Future	landowners and the agri-business community.
Soil & Water Considerations	Existing	Educate how the area's underlying geologic/soil conditions make it an
	& Future	undesireable area for future housing development, but perfect for continued
	- · · ·	agricultural use.
	_ _	Beginning in 1988 and annually ever since a Youth Conservation Day has
Vouth Concervation Day	Fristing	Degining in 1900 and annuary ever since a routh conservation 2 ay
Youth Conservation Day	Existing & Future	$1 \pm 1 \pm$
Youth Conservation Day	Existing & Future	
Youth Conservation Day		have been envited to attend a day full of hands on activities, presentations in
Youth Conservation Day		been held usually on the 4 th Friday in April. All area 5 th graders (250-350 +, have been envited to attend a day full of hands on activities, presentations in the outdoors about the outdoors. Topics include: forestry, recycling,
Youth Conservation Day		have been envited to attend a day full of hands on activities, presentations in the outdoors about the outdoors. Topics include: forestry, recycling, conservation surveying, soil erosion protection, stream critter
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Youth Conservation Day		have been envited to attend a day full of hands on activities, presentations in the outdoors about the outdoors. Topics include: forestry, recycling, conservation surveying, soil erosion protection, stream critter searches/evaluation, local history, archery, fishing, resource protection, and
Youth Conservation Day		have been envited to attend a day full of hands on activities, presentations in the outdoors about the outdoors. Topics include: forestry, recycling, conservation surveying, soil erosion protection, stream critter
Youth Conservation Day		have been envited to attend a day full of hands on activities, presentations in the outdoors about the outdoors. Topics include: forestry, recycling, conservation surveying, soil erosion protection, stream critter searches/evaluation, local history, archery, fishing, resource protection, and

E. Other AEA Activities				
Type of Activity	Timeframe	Provide additional details		
		(use an additional page if necessary)		
Promote Alternative Energy Ideas	Future	Educate and outreach on biogas projects and how direct and future decisions		
	1	affect the way producers may process animal waste in an environmentally		
		safe manner while creating a renewable source of energy.		
Information and Education thru e-mail	Future	Establish an e-mail list by township of landowners located within each of the		
(AEA updates to locals)	1	AEA townships. Use this list to inform landowners about AEA program		
		updates.		
Information and Education	Future	Connect these operations to the larger education of not only our communities		
(larger picture)	1	but national and international communities as well through industry leader		
		tours.		
Formulize AEA Relationships	Future	Utilize the AEA as a vehicle of opportunity to formulize relationships		
		between petitioners and the agribusiness community.		
Assist in AEA Development	Future	Assist landowners in neighboring townships to form new AEA's or add to		
		existing AEA's so they can also see the benefits of AEA formation.		
Create New Agribusiness Ventures	Future	Create new agribusiness ventures that grow the local economy and advance		
		State and local agriculture goals.		