

COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY

2013 – 2017 Region 5, North Dakota

Lake Agassiz Regional Council
417 Main Avenue
Fargo, ND 58103
701-235-1197

www.lakeagassiz.com

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
SECTION I – PLANNING ORGANIZATION AND STRATEGY COMMITTEE	2
Planning Organization	2
Strategy Committee	3
Description of the Lake Agassiz District	4
SECTION II - BACKGROUND	5
General Description	5
Economy	5
Population	10
Geography	14
Workforce Development and Use	15
Transportation Access	17
Natural Resources	20
Environment	24
Flood Plain Management	26
SECTION III – ANALYSIS OF ECONOMIC DEVELOPMENT PROBLEMS AND OPPO	ORTUNITIES.28
Surveys	29
Opportunities by County	31
Opportunities	33
Regional Economic Clusters	35
SECTION IV - DISASTER AND ECONOMIC RECOVERY AND RESILIENCY	36
Preparedness	36
Response	36
Recovery	36
Mitigation	37
Phase I: Pre-Disaster Preparedness	37

Phase II: Post-Disaster Planning and Implementation	38
LARC's Role	39
SECTION V – CEDS GOALS AND OBJECTIVES – DEFINING REGIONAL EXPECTATIONS	40
Mission Statement and Goal	40
Objective 1: Further diversify the regional economic base	40
Objective 2: Stabilize Rural Populations	40
Objective 3: Improve Infrastructure throughout the Region	40
Objective 4: Enhance Leadership Resources in Rural Communities	40
Objective 5: Reduce Disaster Impacts throughout the Region	40
SECTION VI – COMMUNITY AND PRIVATE SECTOR PARTICIPATION	41
SECTION VII – STRATEGIC PROJECTS, PROGRAMS AND ACTIVITIES	42
Objective 1: Further Diversify the Regional Economic Base	42
Objective 2: Stabilize Rural Populations	43
Objective 3: Improve Infrastructure throughout the Region	44
Objective 4: Enhance Leadership Resources in Rural Communities	45
Objective 5: Reduce Disaster Impacts throughout the Region	45
Lake Agassiz Regional Council Work Program, FY 2013	46
SECTION VIII - CEDS PLAN OF ACTION	49
State and Local Plans	49
Recurring Themes	50
LARC Plan of Action	50
SECTION IX – PERFORMANCE MEASURES	53
FIGURES	1
Figure A: Lake Agassiz Region	1
Figure B: North Dakota Highway System	2
Figure C: North Dakota Railroads	3
Figure D: Major Unconsolidated Aquifers	4
Figure E: Red River Basin	5

APPENDIXES	6
Appendix A: Agriculture Trends	
Appendix B: Community Infrastructure Survey	
Appendix C: Financial Institution Survey	
Appendix D: Community Leadership Survey Results	
REFERENCES	36

EXECUTIVE SUMMARY

The Lake Agassiz Region of North Dakota (Region 5) is comprised of the six southeastern counties in the state. The region is bordered on the east by the Red River of the North (the ND-MN border) and the South Dakota border to the south. Cass County is the region's largest county and by virtue of the cities of Fargo and West Fargo has the most diverse economy. The remaining five counties are principally rural. Ransom, Richland Sargent, Steele and Traill continue to lose residents, and this is a paramount concern of county and city officials as well as the Lake Agassiz Regional Council (LARC) Board of Directors. This concern drives the focus of the CEDS.

LARC is governed by a 20-member Board of Directors which represents the interests of all six counties. Membership consists of one city representative, one county commissioner and one soil conservation district supervisor from each county. A minority representative and a workforce development representative round out the membership. The hallmark of the LARC board is its long-standing support of the regional approach to addressing economic and community development concerns.

The LARC CEDS, 2013-2017, focuses the activities of the council over the next five years. The overall mission and goal of the CEDS, as adopted by the LARC Board of Directors, is:

TO ASSURE THE LONG-TERM VIABILITY OF THE REGION'S RURAL COMMUNITIES AND TO ENHANCE THE ECONOMIC WELL-BEING OF THE REGION'S RESIDENTS

Through a thorough analysis of the regional economy, and collection of original data from communities, financial institutions and community leaders, the CEDS attempts to provide a detailed picture of the six county region, the barriers to development in rural communities as well as strategies that must be supported in order to capitalize on recognized opportunities. With that in mind the CEDS identifies a range of objectives and strategies that can assist in meeting the region's overarching goal.

SECTION I – PLANNING ORGANIZATION AND STRATEGY COMMITTEE

Planning Organization

• Legal Structure

Regional planning councils in North Dakota were organized under joint powers agreements as outlined in Section 54-40-08 of the North Dakota Century Code in the early 1970s. In 1977, the North Dakota Legislature passed legislation to clarify the functions and duties of the regional organizations. Chapter 54-40.1 prescribes their powers and duties which are included within the general framework of coordinating the planning and development of all matters deemed to be of regional concern. Economic planning is mandated by the state provided that economic development is indentified as a regional concern.

• Regional Council Membership

Section 54-40-1.03 of the North Dakota Century Code outlines minimum requirements for regional council membership:

At least 2/3 of the full membership must be elected officials;

One member may represent identifiable and organized minority groups existing with the region;

One member must be a soil conservation district supervisor from each county; and

One member may represent industry.

Lake Agassiz Regional Council (LARC), organized in 1973 and designated by EDA as an Economic Development District in May 1975, is comprised of six member jurisdictions – Cass, Ransom, Richland, Sargent, Steele, and Traill Counties. Each county is represented by one city official, one county commissioner and one soil conservation district supervisor. In addition to these members, minority interests and workforce development are each represented by one member.

Table 1: Lake Agassiz Regional Council

	Lake Agassi	z Regional Council Board of Direc	tors				
	December 2012						
Name	Appt Date	Race/Gender	Sector Representation				
CASS COUNTY							
Mary Scherling	2012	White/Female	Cass County				
John Johnson	2006	White/Male	City of Hunter				
Richard Faught	2007	White/Male	Soil Conservation District				
Thomas Jefferson	2003	Black/Male	Minority Interests				
RANSOM COUNTY							
Neil Olerud	2007	White/Male	Ransom County				
Kevin Bunn	2011	White/Male	City of Enderlin				
Jeff Dick	1995	White/Male	Soil Conservation District				
RICHLAND COUNTY		<u>. </u>					
Perry Miller	2012	White/Male	Richland County				
Shelley Luebke	2007	White/Female	City of Mooreton				
Arnold Woodbury	2011	White/Male	Soil Conservation District				
SARGENT COUNTY							
David Jacobson	2011	White/Male	Sargent County				
Ron Narum	1988	White/Male	City of Rutland				
Dwayne Baldwin	1995	White/Male	Soil Conservation District				
STEELE COUNTY							
Randy Richards	2011	White/Male	Steele County				
Brian Tuite	2005	White/Male	City of Finley				
James Law	2011	White/Male	Soil Conservation District				
TRAILL COUNTY		<u>. </u>					
Kurt Elliott	2012	White/Male	Traill County				
Kim Meshefski	2012	White/Female	City of Mayville				
Mark Osland	2008	White/Male	Soil Conservation District				
JOB SERVICE of NORTH DAK	ОТА	•					
Carey Fry	2011	White/Female	Workforce Development				
	ı	1					

Strategy Committee

The Comprehensive Economic Development Strategy (CEDS) Committee was formed to oversee the economic development planning and implementation process including the creation of the CEDS document. The committee includes:

Table 2: Strategy Committee

Name	Affiliation	Areas of Interest	Race/Gender				
Private Sector Representatives: 6 of 11, 54.5%							
Randy Schneider	y Schneider ND Ethanol Producers Association Business Development Biofuels Development		White/Male				
Neil Doty	N.C. Doty and Associates, LLC	Business Development Value Added Agriculture	White/Male				
Mike Bannach	Bremer Bank	Business Finance and Development	White/Male				
Thomas Jefferson	State Farm Insurance	Business Development Community Economic Development Housing	Black/Male				
Brenda Wyland	NDSU Research and Technology Park, Inc.	rch and Technology Park, Inc. Technology Related Business Development					
John Dyste	Grocery Store Owner	Small Business Development Rural Community Development	White/Male				
	Other Representati	ves: 5 of 11, 45.5%					
Dan Reilly	City of Barney/Small Business Development Center	Business Development Community Economic Development	White/Male				
Jane Priebe	City of Wahpeton	Community Economic Development Business Development and Finance	White/Female				
Merlin Beto	Job Service ND Richland County Jobs Development Authority	Workforce Development Business Development	White/Male				
Suzanne Halverson	Steele County Jobs Development Authority	Rural Community Development	White/Female				

Description of the Lake Agassiz District

The Lake Agassiz District (State Planning Region 5) comprises the six southeastern most counties in North Dakota. Five of the district's six counties are extremely rural as evidenced by the fact that only the city of Wahpeton in Richland County has a population greater than 2,500. Cass County on the other hand is principally urban, with Fargo registering a 2010 population of 105,549. Fargo is the central city of the Fargo, North Dakota-Moorhead, Minnesota MSA which includes Cass County in North Dakota and Clay County in Minnesota. Fargo's population makes up 56.9% of the district's population (185,481 in 2010) and demonstrates the ever growing rural-urban dichotomy of the region.

SECTION II - BACKGROUND

This section summarizes the area's historical setting, general description, economy, population and labor force, geography, workforce development and use, transportation access, natural resources, environmental resources and flood plain management.

General Description

The National Resources Inventory (NRI) by the Natural Resources Conservation Service indicates the Lake Agassiz Region covers 4,174,900 acres in southeastern North Dakota. Agriculture is the principal basic industry of the area economy. While the number of farms and farm operators has steadily decreased since the 1950's, agriculture remains the principal driving force of the region's economy. The regional economy continues to diversify, however, due to growth in manufacturing region-wide and growth in a variety of industries in the Fargo portion of the MSA, including education, health care and related fields, and retail and wholesale trade.

Economy

• The Region's Economic Base

The Economic Base of North Dakota (Coon, Bangsrud, Hodur, AAE Staff Paper, 12002, Department of Agribusiness and Applied Economics, North Dakota State University, March 2012) employs the North Dakota Input-Output Model to provide a current analysis of North Dakota's economic base. Basic activities are those that produce a product or service that is purchased by individuals, governments and businesses located outside of the state. The North Dakota Input-Output Model contains eleven basic sectors: Agriculture, Livestock; Agriculture, Crops; Construction; Agricultural Processing and Miscellaneous Manufacturing; Retail Trade; Business and Personal Services; Households; Coal Mining; Coal Conversion; Petroleum and Natural Gas Exploration and Extraction; and Petroleum Refining. The report also describes the state's economic base in terms of industrial categories including federal payments, agriculture, tourism, manufacturing, oil exploration, extraction and refining and coal mining and conversion.

The Lake Agassiz Region's economic base is comprised of activity in the agriculture livestock, agriculture crops, construction, agricultural processing and miscellaneous manufacturing, retail trade, business and professional services and households sectors. The region's largest basic sector in 2010 was the Agriculture, Crops sector which is comprised of gross receipts from the sale of crops grown in the state including federal government farm program payments. This sector does not include Conservation Reserve Payments (CRP) or processing of agricultural crops. Sales for final demand in this sector totaled \$1.46B, 22.5% of the state's total.

The Households sector which represents economy-wide personal income from federal government payrolls and transfer payments including Social Security, Medicare, Medicaid and other federal programs that provide financial assistance to individuals, was the second ranking sector in 2010. CRP payments are also included in this sector Regional sales for final demand in the Household sector totaled \$1.16B in 2010, the year for which the most current data are available. Cass County by virtue of its population base accounted for over 82% of the total Households sector.

Business and Professional Services was the third ranking basic sector in 2010. This sector includes food and lodging and accommodations, transportation services including airlines, taxi and car rentals, and exported services such as telemarketing, data processing, reservation centers, and bank and

software service centers and 25% of tourism expenditures. This sector's activity totaled \$809M with Cass County accounting for nearly 97% of the regional total.

Agricultural Processing and Miscellaneous Manufacturing comprises a significant portion of the region's economic base, \$644M. This sector includes wholesale trade, processing of agricultural products (e.g. corn to ethanol and corn syrup, sugar beets to sugar, canola to vegetable oil, sunflowers to vegetable oil, snack foods and SunbutterTM spread, durum wheat to pasta) and manufacturing of a variety of products including farm and construction equipment and wind turbines. Regional activity in this sector represents 28.9% of the state's total. Ag processing and manufacturing in Cass County accounts for two-thirds of the region's exports.

The Retail Trade sector follows closely behind Agricultural Processing and Miscellaneous Manufacturing. This sector includes 75% of tourism expenditures and accounts only for out-of-state visitors who come to the region for tourism related events such as shopping, vacationing, hunting, athletic events, concerts and other attractions. Activity in retail trade totaled \$634M in 2010, 18.3% of the state total.

The two smallest segments of the regional economic base are the Agriculture, Livestock and Construction sectors. Activity in the Livestock sector which includes sales of livestock and livestock products such as milk, are concentrated in Ransom, Richland and Sargent Counties. Sales in this sector totaled \$67.8M only 7% of the state total, where livestock production is concentrated in the western part of the state. Activity in the construction sector totaled \$54.4M and consists of federal expenditures for construction projects. Locally and state funded projects are not included. The regional construction sector totals 12.9% of the state total. Projects at the VA hospital in Fargo, the Air National Guard Base, and other federal installations are included.

Table 3: Economic Base Comparison by Sector in Current Dollars, 2007 - 2010, Region 5, ND					
2010	% State	2007	% State	% Change	
1,463.5	22.5	993.5	20.1	47.3%	
1,160.1	10.1	890.0	13.5	30.3%	
809.3	34.1	694.1	33.7	16.6%	
644.0	28.9	600.1	28.9	7.3%	
633.9	18.3	543.7	18.3	16.6%	
67.8	7.1	79.3	8.3	-14.5%	
54.4	12.9	36.6	12.9	48.6%	
4,833.0	15.0%	3,837.3	16.1%	25.9%	
	2010 1,463.5 1,160.1 809.3 644.0 633.9 67.8	2010 % State 1,463.5 22.5 1,160.1 10.1 809.3 34.1 644.0 28.9 633.9 18.3 67.8 7.1 54.4 12.9	2010 % State 2007 1,463.5 22.5 993.5 1,160.1 10.1 890.0 809.3 34.1 694.1 644.0 28.9 600.1 633.9 18.3 543.7 67.8 7.1 79.3 54.4 12.9 36.6	2010 % State 2007 % State 1,463.5 22.5 993.5 20.1 1,160.1 10.1 890.0 13.5 809.3 34.1 694.1 33.7 644.0 28.9 600.1 28.9 633.9 18.3 543.7 18.3 67.8 7.1 79.3 8.3 54.4 12.9 36.6 12.9	

Source: ND Input-Output Model Data Base, 2007 and 2010, Department of Agribusiness and Applied Economics, NDSU

The Lake Agassiz Region's economic base increased in current dollars by 25.9% from 2007 to 2010. All basic sectors with the exception of Agriculture, Livestock increased. Agriculture, Crops increased by 47.3% owing to high commodity prices particularly for commodities such as corn, soybeans and sugar beets. The region's crop output accounted for 22.5% of the state's exports in this sector increasing from 20.1% in 2007. While the region's total economic base grew in absolute dollars, its share of the state's total economic base decreased slightly from 16.1% to 15%, due principally to the exponential growth in petroleum exploration and extraction in the western part of the state. Since North Dakota's oil production continues to grow at an accelerated rate (now the nation's number two oil producer), it is expected that the region's share of total state exports will continue to decline somewhat for the foreseeable future.

Description of Regional Economy by Industry Employment

While economic base data is not available by industrial category at the county level it is helpful to examine the region's employment by industry to obtain a more complete picture of components of the regional economy, including both basic and non-basic activities.

Approximately 104,000 people were employed in the region in 2010. The following table shows the allocation of employment among NAICS code industries.

Table 4: Employment by NAICS Code, Region 5, March 2010

Agriculture, Forestry, Fishing, Hunting	318	0.3%
Mining, Quarrying, Oil/Gas Extraction	270	0.3%
Utilities	320	0.3%
Construction	7,564	7.3%
Manufacturing	11,913	11.5%
Wholesale Trade	7,263	7.0%
Retail Trade	13,524	13.0%
Transportation/Warehousing	3,903	3.8%
Information	3,253	3.1%
Finance and Insurance	7,714	7.4%
Real Estate/Rental/Leasing	1,793	1.7%
Professional, Scientific/Technical Services	4,974	4.8%
Management of Companies and Enterprises	3,227	3.1%
Admin/Support/Waste		
Management/Remediation Services	4,972	4.8%
Educational Services	789	0.8%
Health Care and Social Services	15,808	15.2%
Arts, Entertainment and Recreation	1,545	1.5%
Accommodation and Food Services	10,645	10.2%
Other Services (Except Public Administration)	4,212	4.0%
Industries not Classified	0	0.0%
Total	104,007	100.0%
Source: US Census, County Business Patterns, 2010 (NAICS)		

Note: Employment counts include estimates of non-disclosed data

• Trends in Agriculture

Principal crops grown in the region have changed dramatically over the past 30 years. High value crops such as corn and soybeans have displaced wheat and sunflower as the reigning crops in terms of acres planted and profitability. There has also been an impact by the Conservation Reserve Program (CRP) which was initiated in 1985 to set-aside or remove the nation's most high erodible cropland for agricultural production. In more recent years the program was expanded to include all environmentally sensitive lands. Acres of CRP have fluctuated slightly between the years 1990 and 2010 depending on the type of land targeted for set-aside by USDA and by commodity prices at the time of CRP sign-up periods. A total of 140,083 acres were in enrolled in 1990; 204,158 in 2000 and 187,918 in 2010 (National Agricultural Statistics Service).

While the region is not a significant livestock producer in the state, there has been a significant reduction in livestock numbers in the Region. The decline in livestock numbers has most likely occurred because of fewer farm families, less diversification in today's farm operations, and instability in livestock prices in recent years. From 1980 to 2010, the number of head for all cattle decreased from 174,000 to 109,300, milk cows decreased from 7,200 to 1,000, sheep from 38,300 to 5,300 and hogs from 67,200 to 24,200 (National Agricultural Statistics Service). Graphs 1 through 15 depict the changes in principal crop acreage and livestock numbers from 1980 to 2010.

The number of farm operators continues to decline as farms become larger. The number of farm operators decreased by 63% from 1950 to 2006 when the region registered just 3,516 farms. Average farm size was largest in Traill County (1,065 acres) and smallest in Ransom County (423 acres).

Farm Bill

A new five-year bill when passed by Congress will end farm direct payments and will streamline and consolidate agricultural programs. Several titles of the bill that could have an impact to the area's economy are described as below. LARC staff will research which programs may be of benefit once the bill become law.

Title I: Commodities

Weather and market conditions outside of a producer's control can and often do have a devastating effect, particularly on family farms, and the bill therefore continues provisions to protect the interests of producers. The bill proposes to end direct payments, strengthens crop insurance and encourages innovative risk management that only provides assistance when a farm is threatened by risks outside of a producer's control.

Title II: Conservation

There will be a minor reduction in the acres enrolled in the Conservation Reserve Program, to be enacted with a multi-year step-down of acres from the current cap of 32 million to 25 million. Prioritization for re-enrollment will be for the most highly erodible and sensitive acres.

o Title VI: Rural Development

The bill contains provisions to help rebuild rural communities and invest in the future especially for broadband and business development. The bill will target funds to rural communities that are isolated from significant population centers in order to expand broadband services. Other programs in the bill that will improve infrastructure are: Distance Learning and Telemedicine; Water, Waste Disposal and Wastewater Facility Grants and Loans; Rural Water and Wastewater Circuit Rider Program and a Savings Program that will provide zero-interest loans to electric cooperatives to make energy saving retrofit and structural improvements for their customers. Community Development programs in the bill include: Strategic Economic and Community Development Program; Technical Assistance for Community Facilities Projects; and Appropriate Technology Transfer for Rural Areas.

Title IX Energy

There are proposals for new opportunities in bio-based manufacturing, advanced bio-fuels, and renewable energy. Programs are intended to create jobs while reducing the nation's dependence on foreign oil. Programs include: Rural Energy for America Program (REAP), Biomass Crop Assistance Program; Bio-Preferred Program and the Federal Government Procurement Preference Program, Bio-refinery Assistance Program; Bio-energy Program for Advanced Bio-fuels, Biodiesel Fuel Education Program, Biomass Research and Development Initiative; Feedstock Flexibility Program and Community Wood Energy Program.

Population

• Population Trends

The 2010 regional population was 185,481 - an increase of 14.4% from 2000 – comprising nearly 28% of the state's population. As the table below shows, the increase was due entirely to Cass County's growth. Cass increased from 123,138 to 149,778 (21.6%). The table clearly illustrates the continued decline of the region's rural counties, a decline that had tapered off somewhat between 1990 and 2000 but accelerated in all of the rural counties between 2000 and 2010. Population in the five rural counties decreased by 8.4% during the decade. The region's population continues to become increasingly urbanized, a trend that began in the 1930's as farms mechanized and the demand for farm labor diminished. Today nearly 81% of the region's population lives in Cass County, the ND component of the Fargo, ND – Moorhead, MN MSA, and 90% of Cass County residents live within the Fargo-West Fargo urbanized area. The rural-urban dichotomy reported in past years continues to define the region, and as in other agriculturally dependent areas of the country, shows no signs of abating.

Table 5: Population 1980-2010, Region 5 ND, by County

					Change	Change	Change	Change
	1980	1990	2000	2010	1980-90	1990-00	2000-10	1980-2010
Cass	88247	102874	123138	149778	16.6%	19.7%	21.6%	69.7%
Ransom	6698	5921	5890	5457	-11.6%	-0.5%	-7.4%	-18.5%
Richland	19207	18148	17998	16321	-5.5%	-0.8%	-9.3%	-15.0%
Sargent	5512	4549	4366	3829	-17.5%	-4.0%	-12.3%	-30.5%
Steele	3106	2420	2258	1975	-22.1%	-6.7%	-12.5%	-36.4%
Traill	9624	8752	8477	8121	-9.1%	-3.1%	-4.2%	-15.6%
Total Rural Counties	44147	39790	38989	35703	-9.9%	-2.0%	-8.4%	-19.1%
Total	132394	142664	162127	185481	7.8%	13.6%	14.4%	40.1%
% of Population in Rural Counties	33.3%	27.9%	24.0%	19.2%				

Source: North Dakota State Data Center, Population Trends by ND County, 1870-2000; US Census of Population 2010

The following figures graphically show the growing rural-urban dichotomy in of the region.

Figure 1: 1980 Population, Region 5, ND

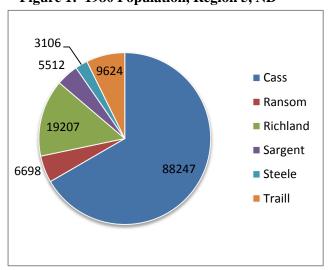
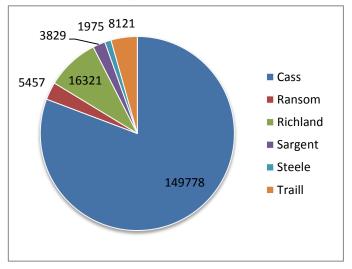


Figure 2: 2010 Population, Region 5, ND



Median Age and Age Cohorts

The median age in each county has risen since 1990. With the exception of Cass, all counties in 2010 equaled or exceeded the state median age of 37 years. The region's rural counties are faced with aging resident populations and a lack of job opportunities that if present could attract and retain young people. Richland County is somewhat more fortunate due to the location of the ND State College of Science at Wahpeton. Student enrollment (over 3,000 in 2011) brings down the median age of the county to under 40 and serves as a pool of potential labor for the county's varied manufacturing enterprises and service businesses. Cass County likewise is home to North Dakota State University and its enrollment of over 14,000 students is a principal factor in the county's median age of 31.5 years.

Table 6: Median Age 1990-2010, Region 5, ND

	1990	2000	2010
North Dakota	32.4	36.2	37.0
Cass County	30.0	31.3	31.5
Ransom County	38.4	40.7	45.2
Richland County	32.3	35.4	39.4
Sargent County	37.8	40.3	45.9
Steele County	39.8	41.4	47.7
Traill County	35.6	39.0	42.6

Source: US Census of Population, 1990, 2000, 2010

The population under age 18 has fallen in all of the region's rural counties both in actual numbers and as a percentage each county's total population, which is indicative of an overall aging population, lower numbers of births and net outmigration. In Cass County, the percentage of those under 18 fell from 23.4% in 2000 to 21.8% in 2010. In absolute numbers however, this population group grew by about 3,800.

The population aged 18-24 years fell substantially both in number and percentage in all of the rural counties and reflects continuing out migration of young people attending post-secondary schools or taking jobs elsewhere. The drop in Richland and Traill Counties was not as severe since both counties host post-secondary schools – Mayville State University in Traill and the North Dakota State College of Science in Richland. Cass County's population in this category grew by over 4,500 but remained at about 16% of the total population due growth in all population categories.

Cass County posted a gain of nearly 5,350 in the 25-44 age cohort, indicative of an expanding and diversifying economy which is able to both attract and retain younger people. The rural counties are not so fortunate, however, having experienced a nearly 25% decline (2,440 people) in this category. Richland County suffered the most severe decline, 1,243 people or 26.9%. The Imation plant closure, a major industrial plant fire, and the temporary closure of the county's only ethanol plant undoubtedly played significant roles.

Every county experienced an increase in the number and percentage of people in the 45-64 cohort. In the rural counties the trend is more likely due to a significant portion of the 25-44 cohort in 2000 having established themselves and remaining in the county. Also true for Cass County, the Fargo metro area was undoubtedly successful in attracting new residents in this age group. Only Cass County experienced an increase in the population over 65. The 22% increase was likely due in large part to the metro area's concentration of heath care and senior living facilities.

Table 7: Age Cohorts 2000 and 2010, by County, Region 5 ND						
	2010	%	2000	%		
Cass County						
Total	149,778	100.0%	123138	100.0%		
Under 18	32660	21.8%	28848	23.4%		
18-24	24222	16.2%	19667	16.0%		
25-44	43914	29.3%	38568	31.3%		
45-64	34432	23.0%	24154	19.6%		
over 65	14550	9.7%	11901	9.7%		
Ransom County						
Total	5457	100.0%	5890	100.0%		
Under 18	1281	23.5%	1471	25.0%		
18-24	275	5.0%	349	5.9%		
25-44	1155	21.2%	1498	25.4%		
45-64	1662	30.5%	1322	22.4%		
over 65	1084	19.9%	1250	21.2%		
Richland County						
Total	16321	100.0%	17988	100.0%		
Under 18	3662	22.4%	4437	24.7%		
18-24	2150	13.2%	2604	14.5%		
25-44	3370	20.6%	4613	25.6%		
45-64	4715	28.9%	3598	20.0%		
over 65	2424	14.9%	2746	15.3%		
Sargent County						
Total	3829	100.0%	4366	100.0%		
Under 18	872	22.8%	1155	26.5%		
18-24	193	5.0%	230	5.3%		
25-44	804	21.0%	1121	25.7%		
45-64	1233	32.2%	1120	25.7%		
over 65	727	19.0%	740	16.9%		
Steele County						
Total	1975	100.0%	2258	100.0%		
Under 18	421	21.3%	624	27.6%		
18-24	91	4.6%	107	4.7%		
25-44	389	19.7%	521	23.1%		
45-64	633	32.1%	564	25.0%		
over 65	441	22.3%	442	19.6%		
Traill County						
Total	8121	100.0%	8477	100.0%		
Under 18	1810	22.3%	2104	24.8%		
18-24	801	9.9%	820	9.7%		
25-44	1696	20.9%	2101	24.8%		
45-64	2293	28.2%	1829	21.6%		
over 65	1521	18.7%	1623	19.1%		

Source: US Census 2010, Summary File 1: US Census 2000, Summary File 1

• Population Projections

Population projections by county were released by the ND State Data Center in 2002. The projections were developed using a cohort-survival model based on census trends that reflected downward movement among most rural counties and growth among counties with larger urban centers. A principal assumption of the projections, however, was a weakening of the flow of population from farmsteads and small rural communities into the state's metropolitan areas. When compared with actual counts from the 2010 Census, this assumption proved to be in error or at the very least overstated with respect to trends in the region. The following table shows that the 2010 projections understated Cass County's growth by 8.8% and decline in the rural counties by 5.8%. Through 2010 urban growth increased at a faster pace than during previous decades (1980-2000) and rural county losses accelerated between 2000 and 2010. This trend does not bode well for rural counties and small farm trade center communities.

Table 8: Population Projections by County vs. Actual 2010 Population, Region 5, ND

_	2010	2015	2020	Actual 2010	Difference
Cass County	137,724	144,880	151,651	149,778	8.8%
Ransom County	5,844	5,860	5,840	5457	-6.6%
Richland County	17,570	17,414	17,218	16,321	-7.1%
Sargent County	4,230	4,225	4,272	3,829	-9.5%
Steele County	2,134	2,102	2,074	1,975	-7.5%
Traill County	8,141	7,987	7,771	8,121	-0.2%
Total Rural Counties	37,919	37,588	37,175	35,703	-5.8%
Total	175,643	182,468	188,826	185,481	5.6%

Source: ND State Data Center, Population Projections 2005-2020

The Fargo-Moorhead Metropolitan Council of Governments (FM Metro COG) developed a set of population projections for the metropolitan area to aid its transportation planning efforts. With the assistance of McKibben Demographic Research, the *Demographic Forecast for the Fargo-Moorhead Metropolitan Statistical Area* (FM MSA) established demographic projections through 2035. The Cass County projection for the year 2020 is 174,340, 15% higher than the ND State Data Center projections. This "High Growth" scenario was adopted by the Metro COG policy board and assumed that local jurisdictions would be proactive in countering negative population trends. The projection for 2035 is 201,190 which reflects an average annual growth rate of about 1.2% over the next 25 years and a 34.3% increase from 2010. While this projection appears to be aggressive for both urban and rural Cass County, it assumes an average 1.2% growth per year, certainly attainable considering continued growth in Fargo's diversified economy.

• Outmigration

The Lake Agassiz Region experienced net in-migration between 2000 and 2009. Cass County – principally Fargo and West Fargo – accounted for all the region's net in-migration and offset outmigration from the region's rural counties. The following data demonstrate that rural outmigration accelerated between 2000 and 2009 and continues to be the most visible symptom of decline in rural communities.

Table 9: Net Migration 1990-1999 and 2000-2009, Region 5, ND

County	Net Migration	Rate per 1000	Net Migration	Rate per 1000
	1990-1999	1990-1999	2000-2009	2000-2009
Cass	7,517	73.07	10,849	88.10
Ransom	58	9.8	-166	-28.18
Richland	-603	-33.23	-2421	-134.51
Sargent	-311	-68.37	-468	-107.19
Steele	-200	-82.64	-508	-224.98
Traill	26	2.97	-433	-51.08
Rural	-1030	-25.88	-3,996	-102.49
Total	6,487	45.47	6,853	42.27

Source: ND State Data Center, Net Migration 1950-60 and 2000-2009 by ND County

Out migration increased in every rural county, but particularly in Richland which suffered the closing of the Imation Corp. manufacturing campus (380 jobs), an industrial fire that destroyed a plating business (75 jobs) and the temporary closure of the county's only ethanol plant in late 2008 (57 jobs). The region also experienced the effects of the national recession, particularly in the manufacturing sector. Bobcat, one of the largest manufacturing employers in the region idled its 1200 employee plant at Gwinner (Sargent County) for six weeks at the end of 2008 and early 2009. Subcontractors and suppliers to Bobcat in both Ransom and Sargent laid off employees in response.

Cass County continued to attract new residents particularly to the FM metro area. West Fargo experienced phenomenal growth over the past decade due in part to adequate flood protection provided by the Sheyenne River Diversion, family friendly growth policies and generally lower property tax rates than Fargo. The metro area's diverse economy, as noted above, serves to attract new residents, particularly those employed in health care, education, manufacturing and retail trade.

Events in 2009 and 2010 may have served to slow outmigration in Richland, Sargent and Ransom Counties. Bobcat, while closing its manufacturing plant in Bismarck, transferred 300 permanent jobs to Gwinner and over 90 to Wahpeton. ComDel Innovation now employs 180 people in Wahpeton, many of whom were former Imation employees, Murphy Oil Company purchased the former US BioEnergy ethanol plant at Hankinson, retaining all former employees and adding several more in the process and Agco-Amity, a farm equipment manufacturer, announced an expansion that will result in 150 jobs in Wahpeton over the next two years. Manufacturing throughout the region appears to be on the uptick, reflective of national trends in the sector.

The pace of outmigration in Steele County is troublesome to the small county whose population dropped below 2,000 in 2010. Because of its distance from Interstate highways and the Fargo-Moorhead and Grand Forks-East Grand Forks MSA's, the county will remain at a disadvantage for future business locations. Traill County development officials surmise on the other hand that the county's net out migration was due in large part to rising gas prices that negatively affected many residents who commute to Fargo and Grand Forks. The county is roughly equidistant from Cass and Grand Forks Counties and communities frequently seek to attract people who would trade the 30-45 minute commute for a lower cost of living and small town environment.

Geography

The Lake Agassiz District (State Planning Region 5) comprises the six southeastern most counties in North Dakota. Its eastern border is the Red River of the North (the North Dakota-Minnesota state line), and its southern border is the North Dakota-South Dakota state line (See Figure A). All of Region 5 lies within the drainage basin of the Red River of the North. The region is located about 250 miles northwest of Minneapolis, MN and 200 miles south of Winnipeg. Manitoba. The eastern two-thirds of the area was once covered by a huge inland lake known as Lake Agassiz, formed from melt waters of the last glacial age. The lake began to form in the Red River

Valley when the glacier retreated north of the drainage divide between the Hudson Bay and Mississippi River drainage basins, near Browns Valley, Minnesota. North-draining rivers were blocked on the north by the ice sheet. The lake that formed ahead of the retreating glacier was small at first and overflowed southward into the Minnesota River Valley. As a result of this lake, the topography is extremely flat in the eastern two-thirds of the region.

The western edge of glacial Lake Agassiz plain is marked by several ancient, remnant beaches. Deltas also formed where large rivers entered the lake; these deltas consist of huge, fan-shaped accumulations of sand. In many places, the wind has blown the surface of the deltas into dunes, such as the Sheyenne dunes in Ransom and Richland Counties and the Hankinson Sand Hills in Richland County.

The western third of the region has topography that is gently rolling along the western edge where the Lake Agassiz bottom grades into glacial till. The area is characterized by many prairie potholes, sloughs and lakes; making the area a prime habitat for waterfall production and other wildlife habitat.

Workforce Development and Use

• Unemployment and Labor Force

The size of the regional labor force has remained relatively stable since 2007, declining by about 1% since 2008. Total employment likewise declined by about 1.9%. All counties, with the exception of Steele, experienced declines in both the size of the labor force and total employment. The table below shows the overall change in the labor force, unemployment and the unemployment rate from 2007 to 2011.

Although the regional unemployment rate is far lower than the national average, the region was not exempt from the effects of the national recession. The region experienced job losses in manufacturing, construction, real estate and retail sectors, much like those sectors nationwide that were hit the hardest. For example, Cass County lost 1,325 jobs between Q2 2008 and Q2 2009. Layoffs were recorded in several manufacturing businesses including tractor manufacturer Case IH, heavy trailer manufacturer Trail King Industries, wind tower manufacturer DMI, Inc., Marvin Windows and Bobcat Company. Unemployment reached 4.8% in March 2009. Ransom and Sargent Counties were directly and immediately affected by the temporary closure of the Bobcat company plant at Gwinner and notification that 200 full-time employees would be terminated in early 2009. Unemployment swelled in Ransom County from 2.9% in Q2 2008 to 6.4% a year later and rose from 3.6% to 8.2% over the same period in Sargent County. With the closing of the Imation Company campus in Richland County at the end of 2008 and the loss of jobs through an industrial fire in Wahpeton the same year, the county's unemployment rate rose to 5.9% in Q2 2009 from 4.1% the year before.

With the exception of DMI which was recently sold and shuttered, eliminating about 215 local jobs, manufacturing companies throughout the region began rehiring within the past two years as reflected in the unemployment rates shown in the following table. Case IH (4-wheel drive tractors), Trail King (heavy duty trailers), Caterpillar Remanufacturing (mining equipment), Marvin Windows, ComDel Innovation (custom manufacturing), Agco-Amity (farm tillage equipment), Giant Snacks (sunflower snacks) have either expanded operations or resumed normal production schedules. Bobcat reversed its decisions to terminate employees at Gwinner and instead transferred 300 jobs to the Gwinner plant and reactivated all those who had been laid off. The company also established a site in Wahpeton that now employs over 90 people. While the labor force and employment hadn't fully rebounded by the end of 2012, unemployment had dropped to more historic nearly full-employment levels.

Table 10: Average Annual Labor Force, Employment and Unemployment Rate, Region 5, ND, 2007 and 2011

	2012			2009		
County	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment
			Rate			Rate
Cass	85,042	82,248	3.3	88,400	84,759	4.1
Ransom	2,768	2,684	3.0	2,964	2,728	8.0
Richland	8,196	7,869	4.0	8,733	8,283	5.2
Sargent	2,127	2,072	2.6	2,015	1,800	10.7
Steele	1,100	1,073	2.5	1,123	1,091	2.8
Traill	3,986	3,845	3.5	4,049	3,888	4.0
Region 5	103,219	99,791	3.3	107,284	101,458	5.4

Source: Job Service, ND; www.ndworkforceintelligence.com

Educational Characteristics of the Population

Region 5 boasts a highly educated resident population which capitalizes on the region's institutions of higher learning including North Dakota State University, Mayville State University, the North Dakota State College of Science and neighboring institutions including the University of North Dakota in Grand Forks and Minnesota State University and Concordia College in Moorhead, MN. Nearly 89% of persons in the region over age 25 are high school graduates and 22.7% have attained a bachelor's degree or higher. The attainment of post-secondary degrees exceeds both the state and national figures, 19.3% and 17.9% respectively (2011 American Community Survey). Cass County's very high percentage of persons with post-secondary degrees owes in part to the presence of three four-year and higher degree granting institutions in the Fargo-Moorhead metro area. The University of Mary also offers master's degree programs and several for-profit institutions (e.g. Globe University, Rasmussen College) offer four-year degree programs in addition to associate's degrees and certificates.

Table 11: Educational Attainment, Region 5, ND, 2011

County	% High School	% Bachelor's	
	Graduates	Degree or Higher	
Cass	94.0	36.4	
Ransom	87.3	17.7	
Richland	87.1	22.4	
Sargent	88.4	15.0	
Steele	88.7	18.4	
Traill	88.0	26.3	
Region 5 Average	88.9	22.7	

Source: www.statsamerica.org

Workforce Training

Over the past decade business and industry have expressed concern over the need to better align the skills of high school, vocational school and college and university graduates with the needs of the private sector. This need has been effectively translated into a variety of local and state plans and initiatives that recognize the importance of providing current and future workers with the skills required in a rapidly evolving economy. For example:

- The Cass-Clay Economic Plan 2008, Fargo-Moorhead Economic Development Corporation highlights the need for science, technology, engineering and math (STEM) related curricula in grades K-12
- O Goal 4 of the ND Economic Development Strategic Plan, 2012, is to "enhance the state education and training system's ability to meet business and workforce needs of the future".

o ND Workforce Development and Training Strategic Plan, 2011-13 emphasizes "cultivating a technically skilled workforce".

Several programs and initiatives within the region assist in addressing the goals and objectives highlighted in the plan noted above.

- O North Dakota State College of Science (NDSCS), Wahpeton offers several workforce training initiatives including customized training for business and industry, skills development for current and future employees and a training assistance program. The NDSCS sponsored Skills and Technology Training Center in Fargo also provides individual training and customized assistance to businesses.
- O SE Region Career and Technology Center, with sites in Wahpeton and Oakes, offers the "Math, Science and Technology Academy" for middle school students.
- o The West Fargo STEM Center, a middle school program of the West Fargo School District focuses on developing future leaders in the STEM subject matter.

Several state sponsored workforce training programs are available to assist regional businesses and industries with training needs including Workforce 2020 and New Jobs Training Program. Both are administered by Job Service ND. Workforce 2020 assists employers with implementing new technologies and work methods by retraining and upgrading of employee knowledge and skills while the New Jobs Training Program financially assists new or expanding primary sector businesses with filling hourly job positions.

Transportation Access

Highways and Roads

The Lake Agassiz Region is served by two interstate highways, the north-south I-29 and east-west I-94 which intersect at Fargo. I-29 passes through Richland, Cass and Traill, while I-94 passes only through Cass County. The state highway classification system identifies state highways as principal arterials and major arterials. Those serving the region are outlined in the following table and shown on the North Dakota Highway System Map, Figure B.

Table 12: Principal and Major Arterials Serving Region 5, ND

Interstate	Counties Served	Principal Cities Served	
I-94	Cass	Fargo, Mapleton, Casselton	East-West – Minneapolis, St. Paul, MN; Billings, MT
I-29	Richland, Cass, Traill	Hankinson, Fargo, Hillsboro	North-South – Kansas City, MO; Winnipeg, Manitoba
Principal State Arterials			
ND 200	Traill, Steele	Hillsboro, Mayville, Portland	East-West
ND 13	Richland, Sargent	Wahpeton, Wyndmere, Milnor, Gwinner	East-West
Major State Arterials			
ND 18	Traill, Cass Richland	Mayville, Hunter, Aruthur, Casselton, Leonard, Wyndmere, Lidgerwood	North-South
ND 32	Steele, Ransom, Sargent	Finley, Lisbon, Gwinner, Forman	North-South
ND46	Cass, Ransom	Kindred, Enderlin	East-West
ND 27	Ransom	Lisbon	East-West
ND 11	Richland, Sargent	Fairmount, Hankinson, Lidgerwood, Forman	East-West
ND 127	Richland	Wahpeton, Fairmount	North-South

Source: ND Department of Transportation

Each county is also served by a system of county and township roads. Local government budgets are increasingly pressured by escalating road maintenance and improvement costs. Floods in 2009, 2010 and 2011 caused considerable damage to county and township roads, and although FEMA Public Assistance funding has borne a majority of the repair costs, local budgets remain strained.

Rail

The Region is served by both freight and passenger service. The Burlington Northern Santa Fe (BNSF) and the CP Rail System provide mainline freight service to major cities in the region including Fargo, Casselton, Mapleton, etc. The Red River Valley and Western (RRVWRR) short line railroad provides localized service to rural communities along 577 miles of track formerly owned by the BNSF. The RRVWRR recently celebrated its 25th anniversary of providing service to grain elevators and agricultural processing plants including the Cargill corn syrup plant and the MinnDak sugar beet processing plant at Wahpeton, the Hankinson Renewable Energy ethanol plant, and the Tharaldson ethanol plant at Casselton. The vast majority of its customers are agriculturally related, many of which were threatened with the loss of rail service when the region's main line railroads were abandoning branch lines in rural areas. The Dakota Missouri Valley Western short line provides service as far east as Hankinson where it interchanges with the CP Rail (See Figure C)

• Air Service

Hector International Airport at Fargo is the region's largest and only airport served by major carriers. Allegiant, American, Delta, Frontier and United provide daily passenger service including non-stop flights to Los Angeles, Phoenix, Las Vegas, Denver, Dallas-Ft. Worth, Minneapolis, Chicago and Orlando. Six fixed base operators are located at Hector and provide charter service (3), flight school (2) and maintenance and repair (1). The region is also served by 13 general aviation airports, located as shown in the following table:

Talbe 13: General Aviation Airports, Region 5, ND

	Ownership	Runway	Surface/Condition	Services
Cass County				
Arthur	Arthur Airport Authority	Runway 17 – 3100x85 ft.	Turf/Fair	Tiedowns
Casselton	Casselton Regional	Runway 13– 3900 x 75 ft.	Concrete/Good	Hangars, Tiedowns, Fuel,
	Airport Authority	Runway 31 - 3900 x 75 ft.		Major Airframe
Kindred	Kindred-Davenport	Runway 11 – 3300 x 60 ft.	Concrete/Good	Tiedowns, Fuel, Major
	Regional Airport	Runway 39 – 3300 x 60 ft.		Airframe, Major
	Authority			Powerplant
Page	Leased to Page Regional	Runway 17 – 2600 x 30 ft.	Asphalt/Fair	Tiedowns, Fuel, Major
	Airport Authority	Runway 35 – 2600 x 30 ft.		Airframe, Major
				Powerplant
West Fargo	West Fargo Airport	Runway 18 – 3300 x 50 ft.	Asphalt/Good	Tiedowns, Hangars,
	Authority	Runway 36 – 3300 x 50 ft.		Major Airframe, Major
				Powerplant, Bottled
				Oxygen
Ransom County				
Enderlin	Enderlin Airport	Runway 12 – 2861 x 40 ft.	Asphalt/Fair	Tiedowns
	Authority	Runway 30 – 2861 x 40 ft.		
		Runway 3 – 2157 x 23 ft.	Asphalt/Turf/Fair	
		Runway 21 – 2157 x 23 ft.		
Lisbon	Lisbon Airport Authority	Runway 14 – 3397 x 60 ft.	Asphalt/Good	Hangars, Tiedowns
		Runway 32 – 3397 x 60 ft.		
		Runway 3 – 1579 x 60 ft.	Turf/Good	
		Runway 21 – 1579 x 100 ft.		
Richland County				
Lidgerwood	Lidgerwood Airport	Runway 17 – 2600 x 100 ft.	Turf/Fair	Tiedowns
	Authority	Runway 35 – 2600 x 100 ft.		
Wahpeton	Wahpeton Airport	Runway 15 – 5100 x 75 ft.	Concrete/Excellent	Hangars, Tiedowns, Fuel,
	Authority	Runway 33 – 5100 x 75 ft.		Major Airframe, Major
		Runway 3 – 3254 x 150 ft.	Turf/Fair	Powerplant
		Runway 21 – 3245 x 150 ft.		
Sargent County				
Gwinner	Gwinner Airport	Runway 16 – 4986 x 60 ft.	Asphalt/Fair	Fuel, Hangars, Tiedowns
	Authority	Runway 34 – 4986 x 60 ft.		
		Runway 6 – 2950 x 100 ft.	Turf/Fair	
		Runway 24 – 2950 x 100 ft.		
Milnor	City of Milnor	Runway 8 – 2210 x 90 ft.	Turf/Good	Tiedowns
		Ruway 26 – 2210 x 90 ft.		
Traill County				
Hillsboro	Hillsboro Municipal	Runway 16 – 3301 x 60 ft.	Asphalt/Good	Fuel, Hangars, Tiedowns,
	Airport Authority	Runway 34 – 3301 x 60 ft.		Major Airframe, Major
				Powerplant
Mayville	City of Mayville	Runway 17 – 3200 x 56 ft.	Asphalt/Good	None
•	1 ' '	Runway 35 – 3200 x 56 ft.		

Natural Resources

Land Use

According to the 1997 NRCS Natural Resources Inventory (NRI), cropland is the predominant land use and accounts for almost 82 percent, 3,436,800 acres, of the Region's total 4,174,900 acres. For the purpose of this report, cropland is defined as all lands used for crop production, hay land, and CRP. Ransom and Sargent Counties have the lowest proportion of cropland acreage in the region (73 percent and 72 percent respectively), while cropland in Traill County, situated almost entirely in the Red River Valley, makes up about 92 percent of the total acres. Agricultural uses (combined cropland, hay land, pastureland, and rangeland) comprise 89 percent of the region's land uses - a strong indicator of the importance of agriculture in the regional economy. The proportion of cropland to rangeland over the last ten years has increased, prompted by high grain prices.

Table 14: Land Use (Acres), Region 5, ND

	Cass	Ransom	Richland	Sargent	Steele	Traill
Cropland	959,100	329,300	711,100	356,100	376,900	507,500
Hay land	5,100	33,100	7,100	15,000	4,600	900
CRP	9,900	44,000	34,100	29,600	13,400	0
Pastureland	15,200	25,700	17,300	32,600	24,600	3,400
Rangeland	12,800	39,700	41,500	68,800	5,100	5,300
Forest Land	2,200	8,100	7,600	0	4,200	5,200
Federal Land	2,600	46,400	36,900	11,900	2,700	700
Urban	42,400	1,500	7,700	800	1,300	3,600
Transportation	34,100	9,100	21,300	10,400	8,700	13,200
Water	4,000	2,900	7,100	5,200	2,400	1,900
Other	44,100	13,200	33,600	24,600	14,100	10,400
Total	1,131,500	553,000	925,300	555,000	458,000	552,100

Source: USDA-NRCS 1997 NRI Data

Note: Urban Land Use in Cass County was adjusted using most current data from the communities of West Fargo and Fargo.

CRP—Conservation Reserve Program

Seven percent of the Region's land, 292,000 acres, is used as rangeland and pastureland, defined as all land with native or tame grasses, as well as shrubs, as the principal cover. Sargent and Ransom Counties have larger proportions of rangeland and pastureland, 12 percent and 18 percent respectively, than do the other counties. Noxious weeds, primarily leafy spurge, continue to be an increasing problem in pastureland and rangeland for all counties in the Lake Agassiz Region. It is common to find that production has been reduced by 20-50 percent or more. A North Dakota State University (NDSU) paper "Assessing the Economic Impact of Invasive Weeds: The Case of Leafy Spurge was published in 2004. Statewide, NDSU estimates there are 625,900 acres of rangeland affected with an economic impact of \$105/acre; and 350,300 acres of wild land affected with an economic impact of \$17/acre. The average loss per acre is \$76 to 86 million dollars annually. (Leistritz)

There have been numerous research efforts to find effective control methods for leafy spurge, however, both technical and financial assistance are still needed by county weed boards in their efforts to control this weed.

Forest lands comprise an insignificant percentage of the overall land use picture of the Lake Agassiz Region. Forested areas occur in conjunction with the Region's rivers, the most heavily wooded areas being the Red River Valley, the Sheyenne River Valley and the Goose River Valley. Approximately thirty years ago, native and urban forests were devastated by Dutch Elm disease, which is still found in every community throughout the entire six-county area. Unfortunately, most elm trees have

already been destroyed, however, the remaining trees in rural communities need to be protected primarily by preventing the storage of barked elm firewood.

An Emerald Ash Borer infestation is a concern for communities and landowners in the area. A program of detection and sanitation is needed to protect the ash forest. In 2008 the North Dakota Forest Service completed an inventory of ash trees in preparation of a probable Emerald Ash Borer infestation, the report indicated 36% of trees in the area are ash, all of which would likely be lost with an Emerald Ash Borer infestation. Nearly all rural communities are in need of urban forestry assistance. Efforts to inform communities of current programs which provide financial and technical assistance in the planning and maintenance of urban forests and community beautification is needed.

According to 1997 NRCS Natural Resources Inventory, urban lands comprise only 4.3 percent of the total land area in the Region, which is defined as developed land within incorporated communities, small and large urban development, and all roads, highway right-of-way and railroads. Of the Region's six counties, Cass has the greatest proportion of land dedicated to urban uses, 6.5 percent. The conversion of agricultural land to urban uses is taking place in areas adjacent to larger cities in the Region, but most notably around Fargo and West Fargo. West Fargo is the fastest growing city in the state. Sprawling development has become an increasing problem in recent years, where housing subdivisions and large commercial developments comprise most of the growth.

Soil

The soils within the Lake Agassiz Region are among the most fertile and productive in the world, therefore it would be expected a large percentage of land would be cropland. The soils are also the Region's most valuable resource, and because of their importance to the regional economy, soils must be regarded as a resource, and hence, wisely managed. Of concern is the potential for erosion, which has depleted soils in the past; the excessive use of agricultural chemicals, poor management practices (such as lack of crop rotation and excessive tillage); and the increasing amount of prime agricultural land lost to urban development (mostly around the Fargo area). Of particular concern is the impact to the Region's soil and resulting loss of agricultural production because of soil salinity.

Soil Salinity

Since the early 1990s there has been a significant increase in soil salinity, which is a concern for producers in the Region. The Natural Resources Conservation Service (NRCS) estimates 1.5 million to 2.5 million acres of saline soil in the Red River Valley. The fertile soils of the Red River Valley, known as glacial Lake Agassiz, formed when deposits filled the lake after the last ice age ended about 10,000 years ago. During the ice age, a sheet of glacial ice several thousand feet thick depressed the earth as much as 600 feet and created a huge bowl, resulting in several hundred feet of lake deposits. The Red River Valley is now a regional discharge area for the entire northern plains, with salty water moving into and through the valley.

There is a potential for very high economic losses to agricultural producers. NRCS estimates economic losses over the next 50 to 75 years could reach well into the billions of dollars. Therefore, an increased awareness of the impacts of salinity, a better understanding of the problem, methods to better estimate the acreage of increasing soil salinity and the development of a long-term strategy for reducing salinity in the valley is needed.

Over time, slightly saline soils are becoming moderately to strongly saline; and salinity is moving into more productive non-saline areas. The change is a subtle one, and as such, many producers do not understand the scope of the problem. The increase in saline acres in the Region is the result of the current wet cycle, which began in the early 1990s, and from a change in land use. Soils in North Dakota formed under native prairie vegetation. The conversion of the land to agricultural crop production has caused an increase of soil salinity because annual crops use less moisture than native

prairie vegetation, which has allowed for an accumulation of excess moisture in the soil profile. The result of unused soil moisture has been a rise in water tables, the lateral movement of water in the soil, and a migration of water to adjacent lands along the fringes of wetlands and road ditches. Road ditch-affected salinity impacts at least 30,000 acres which is directly caused by road construction. Often this type of salinity can easily be corrected with better construction methods that allow water to adequately flow in the road ditch, rather than allowing water to remain in the road ditch and wick to the adjacent land. Since salts are soluble, they easily move with the soil water. Evaporation or evapotranspiration then removes the excess water from an area, the result of which is salts that remain at or near the soil surface. Since it is economically impractical to seed millions of acres back to native prairie grasses in order to use the excess water, it is important to pursue management options acceptable to the agricultural economic system in an attempt to mimic native grasses and improve water use.

Surface Water

Water is a major natural resource concern in the Lake Agassiz Region, both for the quality and quantity of water. Water resources are divided into two categories; surface water and ground water. The surface water consists of natural lakes, man-made lakes, marshes, rivers, and other streams, while the underground water pertains to aquifers.

Many of the streams, rivers and lakes, in varying degrees, have a problem with erosion and sedimentation resulting in reduced water quality for recreation, fish, and wildlife. Major sources of sediment are unprotected crop fields, eroding drain outlets, and roadside and stream bank erosion. Estimates from the National Sedimentation Laboratory indicate a large portion of sediment in rivers and streams is the result of stream bank erosion. There is a need for proper riparian management in order to educate landowners of proper land use and to demonstrate proper treatment eroding riparian areas.

Erosion, along with the increased use of agricultural chemicals in the form of fertilizers, herbicides, and pesticides, pose a threat to the quality and quantity of the area's surface water and ground water resources. This concern is identified in the North Dakota State Department of Health and Consolidated Laboratories Non-point Source Pollution Management Plan. As the demand for agricultural products increases, more emphasis will be placed on production, and the problems associated with erosion and the use of chemicals will become more pronounced. Land treatment watersheds have the potential to protect and enhance the area's water resources. The efforts and resources of public and private entities are needed to carry out strong land treatment programs. There are currently five active watershed projects located in Cass, Ransom, Richland, and Sargent Counties.

During the last ten years there has been an increase in cropland tiling in the six county Lake Agassiz Region. According to currents estimates from the NRCS in North Dakota, 75,000 to 100,000 acres have been tiled in the Red River Valley. Since tiling is being installed primarily to reduce the effects of soil salinity on crop production, the increase of tiled acres will likely continue into the foreseeable future. Tile drain discharges likely will adversely impact water quality; little is known about the possible impacts to surface waters and additional studies are needed.

Animal feeding operations also pose a threat to water resources. The development of large feedlots, over 1,000 animal units, has increased the potential for water quality problems. Many of the larger animal feeding operations have had livestock waste systems installed to manage manure because of recent EPA regulations and with the use of NRCS and EPA 319 programs. There is still a need for adequate treatment of small feedlot operations in all counties.

The City of Fargo is extremely concerned about water shortages during periods of drought which could affect future growth. The water source for Fargo currently is the Red River, which is an unreliable source of water and has run dry during times of severe drought in the past.

Most wetlands in the Region are found in the western portions of Sargent, Ransom and Steele Counties. Bodies of water larger than 40 acres are found mostly in Sargent and Richland Counties. All of the Lake Agassiz Region lies within the drainage area of the Red River of the North. The topography ranges from gently rolling glacial drift prairie to an extremely flat glacial lake basin.

• Ground Water

Ground water investigations have been completed in all counties of the Region. Most known and developed aquifers in the Red River Basin, the main source of water for the region's small communities, are small bedrock and minor drift aquifers having limited yields. Higher yielding aquifers, greater than 500 gallons per minute, are located in Sargent County and portions of Steele and Cass Counties. Most aquifers in the region have yields that range from 50 to 500 gallons per minute. Richland County has the most area underlain by aquifers. (See Figure D)

Many communities and rural farms need adequate high quality water in order to supply domestic use. Ground water contamination from arsenic is a problem in southern Richland County. Rural water systems have been installed in all six counties; however, Steele, Traill, and Cass are the only counties with nearly complete coverage.

Fargo and other participating communities formed the Lake Agassiz Water Authority to explore moving Missouri River Water east through a pipeline system or existing channel and the Sheyenne River during drought. The project has lost favor with the federal government in light of the proposed \$2 billion Red River Diversion project. If the Missouri River Project goes forward it may be with state money only.

Minerals

The leading minerals produced in the Lake Agassiz Region are sand and gravel, mined along the shores of glacial Lake Agassiz. The dollar value of the sand and gravel production is not high.

Wildlife

Wildlife resources located throughout the Lake Agassiz Region are of significant importance. White-tailed deer is the most important big game. Furbearers are important as well as for recreation and hunting; furbearers include red fox, jackrabbit, mink, cottontail rabbit, muskrat, and fox squirrel. River Otters and Fishers, thought to have been trapped out of the area since the late 1800s, have been sighted along the heavily wooded areas along river systems in recent years. River Otters and Fishers are believed to be migrating back into the area from northern Minnesota and Canada.

Protection of existing habitat and additional wildlife conservation practices are needed to meet an ever expanding need for recreation resulting from more leisure time and a growing population. Federal and state programs that provide assistance and compensation to landowners for providing additional habitat need to be promoted. The planting of trees and shrubs for wildlife needs to be encouraged throughout the area to provide food and cover. Cropland management systems that leave small grain stubble over winter will also serve as an available food source.

Lakes in the area offer excellent fishing opportunities for northern pike, walleye, crappies, bluegill, perch, largemouth bass, and smallmouth bass and a few have been stocked with trout. The Red River is also well-known for channel catfish fishing, attracting out-of-state tourists primarily from the middle-South.

• Sheyenne Grasslands

There is potential for increased tourism and recreation development for the Sheyenne Grasslands in Ransom and Richland Counties. The Sheyenne Grasslands is managed by the US Forest Service and is one of the last tall grass prairie ecosystems remaining in the United States and therefore has many visitors. Each year there are over 1000 visitors to the area, most do not register with the US Forest Service. Additional facilities adjacent to the grasslands should be expanded to meet the needs of tourists, nature enthusiasts, bird watchers, horseback riders, hunters, and people working in the area.

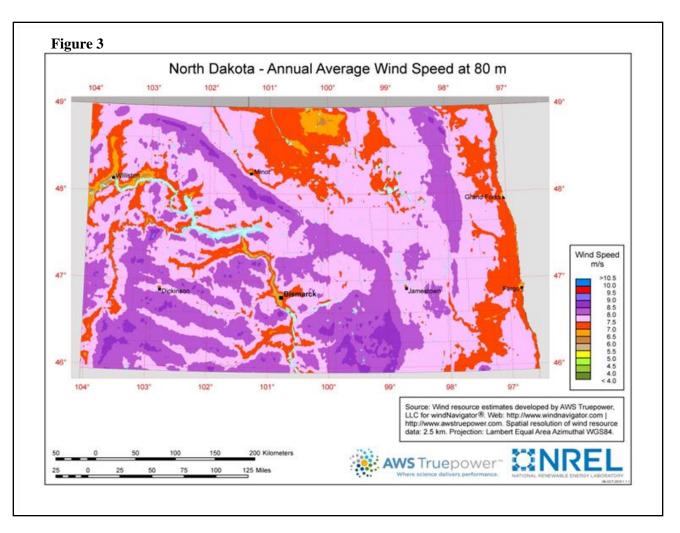
Environment

• Wind Resources

North Dakota has a valuable and ample wind resource with the potential to produce more than 1.2 trillion kWh of electricity every year enough to power more than a quarter of the entire country.

The Department of Energy's Wind Program and the National Renewable Energy Laboratory (NREL) published a wind resource map for the state of North Dakota. The wind resource map shows the predicted mean annual wind speeds at an 80-meter height. Areas with annual average speeds around 6.5 m/s and greater at an 80 meter height are generally considered to have suitable wind resource for wind energy development. This includes all counties located in the Lake Agassiz Region. Although only one commercial wind farm has been developed in the region, there is potential for further development.

Beyond its environmental benefits, wind energy continues to present an economic opportunity for the area despite recent setbacks in the industry, with several turbine manufacturers closing throughout the country including DMI Industries in West Fargo. While the outlook is not as optimistic as it once was, the potential remains for further development. Limiting factors, however, include start-up costs, fossil fuel subsidies and the current cheap price of natural gas. In North Dakota, for example, the discussion of new wind farms has subsided as oil and natural gas flow from the Bakken Formation in the western part of the state.



Source: North Dakota Wind Energy Resources

• Biomass and Biofuels

A combination of forces has stimulated interest in biomass-based energy and products. Concerns about high foreign oil costs and supply disruptions initially spurred interest in alternative energy sources. Environmental concerns also support development of renewable energy sources because biofuels and products derived from biomass are essentially carbon-neutral.

Two large-scale corn-based ethanol plants were built in the Lake Agassiz Region in the last five years- Hankinson Renewable Energy, LLC (HRE) located at Hankinson, and Tharaldson Ethanol located at Casselton. It is unlikely there will be additional facilities constructed in the near future because of the high capital costs associated with ethanol plant construction, the ending of ethanol subsidies and the high volumes of water required to produce corn-based ethanol. While the HRE plant relies on available ground water in Richland County, the Tharaldson plant employs a unique system of treating, piping and recycling wastewater from the city of Fargo. There are few other areas in the region that can accommodate such large water users.

The utilization of waste products left after the production of corn ethanol has the potential to insure the economic feasibility of the corn ethanol industry. The conversion of a corn ethanol waste product from a plant's thin stillage into useful products is being studied. There is also potential to produce cellulosic ethanol from bio-mass, although the technology for a full scale cellulosic production has

not been fully developed at this time. These processes are discussed more fully in Section II, Economic Opportunities.

• Recreation

The Sheyenne River Valley in Ransom County is the region's most attractive area for outdoor recreation. The scenic heavily wooded valley is home to Fort Ransom State Park, and the picturesque community of Fort Ransom which boasts a downhill ski run with chair lift, snowboarding and cross county ski-trails. The road stretching from Lisbon through Fort Ransom to Valley City in Region 6 is a federally designated National Scenic Byway which takes tourists through the heart of the Sheyenne Valley. Noted for its fall colors, the area also attracts nearly 25,000 people to the Sheyenne Valley Arts and Crafts Association Festival in Fort Ransom in late September.

Several counties sponsor water based recreation areas including the Dead Colt Creek Recreation area south of Lisbon (Ransom County), Brewer Lake recreation area in western Cass County and Mooreton Lake Recreation Area in Richland County about 10 miles west of Wahpeton. Golden Lake in Steele County and Lake Elsie in Richland County, though both heavily privately developed, also provide public access for swimming, boating and picnicking. Golden Lake in particular is used by a large number of Air Force personnel stationed at the Grand Forks Air Force Base.

As noted earlier, the Federal Sheyenne Grasslands in Ransom and Richland Counties offers opportunities for multi-use recreation, such as birding, horseback riding, and nature studies. Several endangered species including the Western Prairie Fringed Orchid attract tourists, photographers and researchers from across the country. Hunting opportunities abound in the southern portion of the region (Sargent and Richland Counties) where the flat terrain of the Red River Valley transitions to the prairie pothole region. Wildlife management areas are common, and bird hunting is an attraction for out-of-state hunters.

Flat terrain and few trees in a large share of the region limit recreation to community based facilities. Most cities have traditional facilities such as playgrounds picnic areas, softball diamonds and tennis courts. Some communities have golf courses and swimming pools to support participation in more diversified activities. Local festivals abound and include activities such as 4th of July celebrations, Oktoberfest, and Sunflower Days.

Flood Plain Management

There is a long history of severe flooding in the Red River Basin, especially for communities located on the Red River. Donald Schwert, PhD., Professor of Geology and Director for Science and Math Education at North Dakota State University describes four main reasons for the area's vulnerability to flooding, all associated with the physiography of the Red River Valley: 1) The northward flow of the Red River – the runoff from the southern portion of the valley joins with fresh melt-off waters from more northerly areas; 2) Ice Jams – ice jams are related to a north flowing river and when ice derived from the southern valley progressively meets with freshly broken ice in the central and northern valley, the resulting concentrations can build, retard or dam water flow; 3) Flat Terrain – the Red River floodplain is one of the flattest expanses of land in the world. In addition the Red River is young and has not had sufficient time to carve a significant valley-floodplain; 4) Decreasing Downstream Gradient – the rivers gradient decreases from 5 inches per mile in the Fargo area to 1.5 inches per mile from Drayton to Pembina. The lack of slope contributes to development of a massive shallow lake. See the map of the Red River Basin in Figure E.

According to the National Weather Service, Advanced Hydrologic Prediction Service, the ten most severe Red River of the North floods at Fargo have occurred with increased frequency. Four of the ten most severe floods

occurred during the nearly 100-year period from 1882 to 1979, while the last six occurred during the 20-year period from 1991 to 2011.

Table 15: Ten Highest Crests, Red River of the North at Fargo

	Date of Crest (Fargo, ND)	Crest (in feet)
1	03/28/2009	40.82
2	04/18/1997	39.72
3	04/07/1897	39.10
4	04/09/2011	38.75
5	04/15/1969	37.34
6	05/05/2006	37.13
7	03/21/2010	36.99
8	04/14/2001	36.69
9	04/09/1989	35.39
10	04/19/1979	34.93

Source: NWS Advanced Hydrologic Prediction Service

According to the US Army Corps of Engineers (USACE), a review of Red River flow data verifies the increase in flood magnitude and frequency in the relatively recent decades of the period from 1901 to 2009. A time series of natural annual maximum and variability of the flows have increased since the beginning of the record. Some pertinent USACE research suggests the increases are consistent with projections of possible effects of climate change.

Flood damage to prime agricultural land, public utilities, rural and urban communities, roads, and bridges occurs frequently along the rivers and their tributaries. In flat areas such as the Red River Valley, the floodwaters flow overland causing wide scale flooding of crops and land. During the 1975 summer flood, crop losses were nearly 100 percent in an area from 2 to 6 miles wide along the Red River in much of Cass and Traill Counties. These problems are associated with inadequate outlets, reduced channel capacities, and lack of adequate land treatment measures. Construction of dams, flood control channels, and other structures are also needed throughout the area to reduce flood damage.

Recent severe summer flooding occurred in 1975, 1993, 2003 and 2007 when portions of the area received heavy rainfall, causing many Red River Valley farmers to suffer crop losses. According to the Conservation Needs Inventory 423,765 acres are affected by excess water problems. While some internal drainage problems occur on this acreage, removal of floodwaters is of major concern to the valley farmers.

Major discussions, planning and preliminary engineering have taken place over the past three years regarding the development of a flood diversion channel to primarily protect the cities of Fargo-Moorhead. The \$2.0 billion project has generated considerable controversy among both upstream and downstream landowners and residents and is likely to generate legal challenges. While the diversion study and planning continues, individual communities, including Fargo, continue to implement localized flood control measures. Annual flooding takes its toll on the region, straining local budgets, particularly those of townships and counties which must deal with the damage resulting from recurrent overland flooding. The mental and physical strain each year is telling and the negative publicity surrounding persistent flooding has a real albeit unquantifiable impact on development potential.

SECTION III – ANALYSIS OF ECONOMIC DEVELOPMENT PROBLEMS AND OPPORTUNITIES

The land is the Lake Agassiz Region's major natural resource, and the crops it produces are the principal raw materials of the region's economy. The protection and enhancement of the most valuable resource in the region is necessary for long-term sustained growth.

Reliance on one basic industry is generally viewed as undesirable in that all other sectors are directly affected by its trends. Although this rationale is indisputable, it may be that an agricultural economy is less susceptible to radical swings than say, an economy based on solely on the manufacturing of steel or automobiles. Furthermore, agricultural has acted to insulate the region from national economic slowdowns that have occurred in recent years.

An agriculturally based economy, however, can undergo radical income fluctuations from year to year. Those farmers participating in USDA farm programs can receive loans for working capital and grain storage payments, as well as cash program payments for land that is left out of production. The intent of these programs is to balance out the income instability in an unpredictable industry, and to take unproductive and/or land at high-risk for producing crops out of production.

Agriculture has provided the region's residents with relatively high incomes and protections against past economic slowdowns for some time. However the region still faces the question: "Is it desirable to diversify the economy?" The answer is "yes" for two reasons. First, in past years low grain prices in combination with increased production costs resulted in low farm incomes, which reverberate throughout the regional economy particularly during periods of national recession. Second, it is commonly agreed among the region's residents that rural and small town living is desirable, and therefore some degree of growth must occur in order to provide for the continued support of the region's small towns. Agriculture alone no longer provides that support. Increased mechanization and technological advancement in agriculture production has continued, resulting in a much less labor intensive industry. While this is good news for manufacturing industries that support agriculture, local retailers and service providers in small towns have experienced the loss of business formerly provided by farm laborers and their families. Since there are relatively few other job opportunities in rural areas of the region, the exodus of residents from the small towns continues. The overall result is fewer and larger farms supporting smaller numbers of agricultural trade centers whose populations continue to decline.

How then, and to what extent can the regional economy be diversified, not only to stabilize incomes and population levels, but also to provide a measure of growth in the region's rural communities?

The ability to adapt using available resources can be defined as economic development. Economic development can occur when resources are mobilized to take advantage of opportunities at the local, regional, or national level. In the Lake Agassiz Region those resources include:

- 1. Very fertile and productive soil.
- 2. High agricultural production.
- 3. A resident population which possesses the qualities and abilities to become more highly skilled participants in the labor force.
- 4. A healthy business tax climate.
- 5. A strong state economy.

- 6. State and local business and industrial location incentives in the form of property and income tax exemptions.
- 7. Improving community facilities in many cities.
- 8. Available wind and the production of biomass for development of alternative energies.
- 9. Good main stem transportation facilities.
- 10. Diverse and quality higher education facilities.

On the other hand, the region and its rural communities are faced with a number of impediments to economic development, and a successful economic development effort will address the following to the greatest extent possible.

- 1. Inadequate funds to provide necessary infrastructure development and improvements.
- 2. Lack of access to capital for business and industrial expansion
- 3. Lack of strong local leaders in some communities.
- 4. Lack of a skilled labor force; and in many cases the lack of an available labor force.
- 5. A harsh winter climate.
- 6. Repetitive flooding in the Red River Valley and along its tributaries.
- 7. Distance from major national market centers.
- 8. Lack of local organizational and management skills necessary to carry out a successful development project.
- 9. Lack of available housing to accommodate growth in smaller cities.
- 10. Lack of an adequate water supply to support large industrial water users in some areas of the region.
- 11. Lack of developed industrial sites.

Surveys

LARC conducted several surveys to determine the extent to which these impediments threaten economic growth and development.

• Community Infrastructure Survey (N=65)

A survey of all non-metro communities in the region conducted in late 2009 indicated tremendous need for infrastructure improvements. Thirty-one or 47.7% of communities responded. Principal needs in rank order were street improvements (51.6%), sanitary sewer distribution improvements (45.2%), storm sewer, drainage and flood protection (32.3%), water distribution system improvements (16.1%), water reservoirs (16.1%), lagoon improvements (9.7%). The total estimated cost to meet the reported needs was in excess of \$63 million. Since less than half the surveys were returned and infrastructure needs in the Fargo metro area were not surveyed, the cost of region wide infrastructure improvements are undoubtedly far higher, reaching into the hundreds of millions of dollars. This does not include the proposed \$2.0 billion price tag for the Red River Diversion. It should also be noted that some of the projects reported in the survey have been accomplished. Infrastructure maintenance and rebuilding is a national issue and the reported needs require financing participation from state and federal sources. Refer to Appendix B for a sample survey and list of respondents.

• Financial Institution Survey (N=35)

A survey of 35 financial institutions was conducted in 2009 to determine the availability of credit for commercial projects, extent of banks' participation and knowledge of economic development programs and the impact of the recession on lending activity. Thirteen banks (37.1%) responded ranging from small community banks to National Association banks. Four are located in Fargo and the remainder in rural communities throughout the region. Respondents' deposits ranged from \$11.8M to \$1.4B. All banks reported making commercial loans. Commercial loans as a percentage of total loans ranged from 14% to 97% with 7 of the 13 respondents reporting less than 25%. All banks reported that less than 25% of their commercial loans were to business start-ups. Six reported start-up lending as less than 5% of their commercial portfolios. Business expansion loans and operating lines generally made up a higher proportion than This is to be expected in that start-ups are few and far between in smaller communities, and the risk associated with such loans prohibits many financial institutions from participating. The survey also asked respondents about their use of local, state and federal financing and economic development programs. While most, 84.6%, had used SBA programs such as the 7a guarantee and 504, 61.5%, there was much less frequent use of USDA, state and local programs. The one exception was the Bank of North Dakota PACE interest rate buy down program used by 53.8% of the respondents.

While all of the respondents felt that the local economic environment was strong, 5 had tightened their credit criteria in response to the national recession.

This survey, in short, reinforces the need for an increased bank role in start-up and business expansion enterprises. Public financing programs can and should play a greater role, minimizing risk for banks while helping to assure successful business and economic development ventures. Refer to Appendix C for a sample survey and list of respondents.

• Rural Community Leader Survey (N=50)

Strong volunteer and elected leadership is a hallmark of successful small communities. The lack thereof is a common thread that afflicts those that are less successful. Fifty elected and volunteer leaders were surveyed via *Survey Monkey* in late 2011, with 21 or 42 % responding. Over 63% held elected local or county office and all of the respondents belonged to one or more local community organizations such as local development corporations, business associations or arts groups.

Fifty percent of respondents felt that that local elected leadership was either strongly or moderately active and engaged in their community. However, 50% reported elected leadership as either satisfied with the status quo or moderately or strongly disengaged. Similarly, 57% of respondents reported volunteer leadership as either strongly or moderately engaged and 43% believed volunteer leaders to be satisfied with the status quo. Overwhelmingly, 71.4% felt that the primary barrier to new people being elected or appointed to positions of leadership is overall lack of interest. Time constraints also pose a barrier for many who decline to serve in volunteer civic organizations. The good news is that 60% of respondents felt there is an adequate pool of residents under 30 who are candidates for future leadership positions. Almost uniformly respondents felt that potential leaders need to be invited to participate and encouraged and mentored by existing community leaders. In summary there is a semblance of optimism among respondents, but efforts need to be made to encourage the next generation of leadership, to help create more jobs and to meet recognized infrastructure demands. Refer to Appendix D Community Leadership Survey for a summary of results.

It is the aim of the Lake Agassiz Regional Council's Comprehensive Economic Development Strategy to assist in overcoming these impediments to achieve, to the greatest extent possible, diversification of the economic base and eventual growth in all sectors of the region's economy.

Opportunities by County

Cass County

The Fargo metro area which includes West Fargo is the retail and service hub of the region and continues to experience growth in nearly all sectors of the economy, particularly in health care, manufacturing and wholesale and retail trade. Caterpillar, Inc. which owns and operates a remanufacturing facility in West Fargo, completed a \$50 million expansion and is in the process of hiring 250 people over three years. Costco opened its first store in the state in October 2012 and employs over 200 at the West Fargo location. Sanford Health and Essentia Health dominate the healthcare sector in Fargo and throughout Fargo's trade area and have solidified their presence with acquisitions and expansions of clinics and hospitals. Sanford held a groundbreaking for its new \$500 million hospital in late 2012, and the new facility is expected to open in 2016. Essentia Health announced an \$80 million multi-year expansion to its hospital in south Fargo. Hiring for these facilities has already begun and there are expected to be significant numbers of new jobs at both facilities into the foreseeable future. As an example, recently over 200 recently laid off workers from PRAC'S Research Institute were immediately sought by health care related companies in the community and job fairs were held by Sanford, Essential, and Blue Cross Blue Shield.

Growth in the biomedical sector continues with companies involved in vaccine production announcing expansion plans. Aldevron, a producer of DNA for vaccine development among other products, purchased a former multi-story school building near downtown Fargo and will redevelop it into the company's headquarters. Aldevron's products are marketed worldwide, and the company has locations in Madison, WI and Freiburg, Germany. Aldevron and other companies in this sector look to their relationship with researchers and students at NDSU as critical to the industry's growth in the region.

• Ransom and Sargent Counties

Ransom County is located directly south of western Cass County. Lisbon, the county seat, is 15 miles north of Gwinner, home of the Bobcat Company manufacturing plant that employs over 1,200 people. Many management and production employees live in scenic Lisbon which lies in the Sheyenne River Valley. Doosan Infracore purchased Bobcat in 2006, and concern mounted over foreign ownership's future intent for the company. In spite of Doosan's assurances that it would continue and even expand operations in North Dakota, the recession impacted demand for Bobcat's small construction equipment, forcing layoffs at both the Gwinner and Bismarck plants. It was later announced that 200 Gwinner employees would lose their jobs. Unemployed swelled to 6.4% in Q2 of 2009 as layoffs at Bobcat and many of its suppliers took effect. In Q4 2009 Doosan took a course correction and announced total closure of its Bismarck plant and the transfer of 330 permanent jobs back to This transition brought Sargent County's unemployment rate down from 8.9% in November 2009 to 3.2% in November 2010 and 2.3% in November 2011. Ransom County's rate fell to 3.9% in November 2010 and 2.7% for the same period in 2011. The company continues to hire which reflects the resurgence in manufacturing in the region, particularly heavy equipment manufacturing. The consolidation of manufacturing at Gwinner, which is closer to eastern markets than the Bismarck plant, has brought some measure of confidence back to both Ransom and Sargent Counties and surrounding area. Great Plains Natural Gas has presented a plan to Bobcat to bring natural gas to the community and the plant. As of this date, however, Doosan Infracore has declined

to accept the proposal, an action that is somewhat worrisome since it puts into question Doosan's long-term commitment to the area.

• Richland County

Richland County suffered several serious economic blows that resulted in increased unemployment and a nearly 11% drop in population since 2000. The Imation Corp. announced its exit from its three building, 90-acre Wahpeton campus in May 2007 and phased out 390 employees by the end of 2008. In early 2008 a fire destroyed much of Industrial Plating on Wahpeton's south side and left nearly 50 people without jobs, since ownership made the decision not to rebuild. In November 2008 VeraSun Energy closed its 110 million gallon per year ethanol plant at Hankinson and the company filed for Chapter 11 bankruptcy protection.

A reversal of these trends beginning in 2009, continue to help the county rebound. ComDel Innovation, Inc., a contract design and manufacturing firm, weathered the recession without laying off any of its employees and has since increased employment to nearly 200. ComDel's ownership formed Heartland Precision (HP) in 2008 to continue the threading business salvaged from Industrial Plating. HP decided in 2010 to install a plating function and completed installation of a zinc plating line in early 2011, expanding the range of services that both HP and ComDel can provide to a wide range of customers. The companies operate out of two of the former Imation buildings with combined space of about 230,000 sq. ft.

Bobcat Company announced in 2009 that it would locate 60 of the full-time jobs transferring from Bismarck to the third building on the Imation Campus. The job count at Bobcat is now above 90. All three former Imation buildings are occupied and are home to over 300 employees (ComDel, Heartland Precision and Bobcat) and this number is expected to grow. While the net loss from the Imation closure is still about 100, this number is expected to decline as the local manufacturing base continues to expand. Wil-Rich, LLC, now known as Agco-Amity Joint Venture, LLC, announced a major expansion in early 2011 that included a state of the art paint facility for its agricultural tillage equipment which are marketed internationally. The expansion will require an additional 150 employees over the course of the next 3-5 years. Giant Snacks, Inc. a processor of premium sunflower seed snacks continues to expand its market share and products. The recent addition of inhouse roasting equipment required several new employees and employment now stands at about 40 FTE's. WCCO Belting a manufacturer of industrial and agricultural belts announced its third expansion and added both production space and employees in 2012.

Steele County

Steele County is the region's most rural county with a 2010 population of 1975. The county continues to experience unabated out migration and population loss. Population declined 36.4% since 1980. Total employment in the county stood at 1,082 in November 2011 down from 1025 in November of 2010. Micada, Inc. a manufacturer of steel grain hopper bottoms, LaRinascente Pasta, LLC, a specialty pasta manufacturer, and Top Taste, Inc., a frozen dough products manufacturer are prominent manufacturers in the county. LaRinascente Pasta has increased sales and profitability over the past two years and maintains a work force of 28 employees in the small community of Hope.

Steele County is the most agriculturally dependent county in the LARC region. It's small population and very large farms translate to high incomes when commodity prices are high. The county's median household income was highest in the region in 2008, but slipped to fourth highest in 2009 as prices fell from record highs.

• Traill County

Traill County's economy is more diverse than the region's other rural counties by virtue of Mayville State University, two hospitals and other medical facilities located in Hillsboro and Mayville. The

American Crystal Sugar Coop's sugar beet processing facility north of Hillsboro is the county's largest manufacturing employer, employing in excess of 300 people during the harvest and processing season. The normally harmonious relations between the company and its workforce and local communities became toxic in 2011 when company's officials locked out union employees who had overwhelming rejected a contract offer. As the earlier discussion explained, the impact of the 20 month long lockout upon labor, the company and communities had been overwhelmingly negative and the long-term impact has yet to be determined. ACS profits fell by 32% in fiscal year 2012, though were still over \$500M. Union workers voted April 15, 2013 to accept management's contract offer and workers have returned to work.

Opportunities

While there has been success in recruiting business and industry to the metropolitan area, growth in the rural portions of the region, however, comes generally from within, from either existing company expansions or new start-ups. The concept of locally adding value to the wealth of agricultural products produced in the region continues to be a viable strategy. On-going investments in large agricultural processing industries (sugar beets, oilseeds, corn fructose) reinforce the premise that raw products can be successfully processed in and distributed from the region. Agricultural processing expanded into biofuels in the region in 2006 The ethanol industry, as a whole, encountered major setbacks in 2008 as production outstripped demand and high corn prices affected the cash flows of VeraSun Energy, the nation's second largest producer, forcing it to idle the Hankinson plant. VeraSun later filed for bankruptcy and the plant was sold to Murphy Oil in 2009. While support for biofuels has waned, both the Hankinson plant and the Tharaldson plant at Casselton are in full production.

Feasibility studies of potential biodiesel plants transitioned from fuel production to soybean crushing and vegetable oil production, but little progress on either strategy has been made within the past two or three years. Spin offs of biofuels production continue to be studied and the concept of creating products from the waste stream of biofuels is being examined.

The production of nitrogen fertilizer, much of which is currently imported from China, took major steps forward in 2012. A consortium consisting of the North Dakota, South Dakota and Minnesota Corn Growers Associations and the Manitoba Canola Growers Association is planning to develop a large-scale nitrogen fertilizer production plant within the tri-state area of North Dakota, South Dakota and Minnesota. Eastern North Dakota is considered a front-runner due to the state's large volume of natural gas production and central location to the market area. Since most nitrogen fertilizer is currently imported, the development of such a plant would be a major boon to the area in terms of jobs and reduction in farm input costs.

North Dakota State University (NDSU) and the NDSU Research and Technology Park continue to be drivers of economic diversification in the region. NDSU's research budget has increased to over \$100 million per year and private companies are being spun out of university research in fields such as polymers and coatings, micro sensors, nanotechnology and biosciences. The Center for Technology Enterprise, the technology park's incubator facility, is fully occupied by a variety of small companies developing innovative technologies in these fields. The Red River Valley Technology Corridor continues to support technology related ventures through support for entrepreneurs and applied research. Support from EDA through University Center grants has assisted the Technology Corridor to develop programs for local and regional technology based development. There is much promise in this area, but the impact to rural communities has yet to be demonstrated.

The continued shift of population from rural communities to urban areas is a prime concern for small cities trying to preserve rural vigor and lifestyles. Rural cities are attempting to take advantage of new technologies, and the state's development of state-of-the-art broad band infrastructure both enhances the ability of existing businesses

to become more technologically proficient (in terms of internet usage for sourcing materials and marketing) and provides basic technology infrastructure for new business development. The acquisition of basic technology infrastructure will remain problematic for isolated rural communities. The NDSU Research and Technology Park has added rural outreach to its incubator program affording rural entrepreneurs access to entrepreneurial and technical assistance through a cooperative program with Valley City State University (VCSU). The Microsoft Share Point Initiative launched in 2009 provides training at VCSU and a virtual incubator program housed at the CTE affords entrepreneurs throughout the state to register at the site and access training and mentoring.

Communities located near the Sheyenne National Grasslands in Ransom and Richland Counties and in the scenic Sheyenne River Valley continue to actively promote tourism, though there has been some ebbing of activity as gas prices soared in recent years. The area can and should market itself more aggressively to the Fargo-Moorhead area as a destination for day trips centered on bird watching, hiking, horseback riding, downhill and cross-country skiing, and the annual arts fairs held in the scenic Fort Ransom area. This requires a coordinated effort and budget that seems to elude the area, though an attempt was made by a tourism action committee several years ago. A new visitors' center at Fort Abercrombie, a state historic site 30 minutes south of Fargo, is also a unique attraction unknown to many metropolitan area residents.

A strategy to purchase existing profitable businesses and relocate them to rural North Dakota continues to be viewed as a viable economic development approach, especially for small communities which have tremendous difficulty marketing themselves to prospective businesses and few local options for expansion. La Rinascente Pasta, LLC in Hope (Steele County) serves as the model for other communities. The 2011 completion of the acquisition and relocation of Minneapolis Specialty Advertising Company (now Heartland Candies, LLC) to Hankinson reinforces the viability of this approach. The process takes tremendous commitment from local investors and development groups and can be immensely time consuming. With the right company however, it can yield successful business development.

The burgeoning oil and gas industry in the Bakken Formation is providing opportunities throughout the state, including the Lake Agassiz region, for companies which can provide needed services to oil companies and their workers. For example a trailer manufacturer in the small community of Dwight, located just west of Wahpeton is providing trailers for oil field pumps and a laundry in Fargo is specializing in cleaning oil field clothes. Developers are also constructing lodging, housing development, new retail, restaurants and the like. With the recent statement by the USGS that doubles the estimate of retrievable oil and gas from the Bakken and Three Forks Formations, these opportunities for business expansion will continue to grow.

Regional Economic Clusters

Table 16: Location Quotients, Region 5, ND

Industry	Industry Cluster Establishment LQ	Industry Cluster Employment LQ
Manufacturing Supercluster*	1.01	1.01
Defense and Security	1.04	.65
Printing and Publishing	1.08	1.2
Energy (Fossil and Renewable)	1.12	1.0
Mining	1.15	1.44
Arts, Entertainment, Recreation and Visitor Industries	1.19	1.21
Chemicals and Chemical Based Products	1.47	.84
Transportation Equipment Mfg	1.49	.74
Glass and Ceramics	1.50	1.51
Machinery Mfg	1.57	2.62
Transportation and Logistics	1.98	1.04
Agribusiness, Food Processing and Technology	3.54	2.22

^{*}The manufacturing supercluster is an aggregate of primary metals, fabricated metal products, machinery, computer and electronic products, electrical equipment, appliance and components, transportation equipment.

The location quotients reinforce the overall discussion of the regional economy, with agribusiness and food processing (value-added agriculture) and machinery manufacturing playing significant roles. Continued investment in the region's principal basic industries will continue to expand opportunity in these sectors further expanding the economic base. Industries such as computer and electronic product manufacturing, advanced materials and biomedical and biotechnical (life sciences) all have location quotients significantly below 1.0. State, regional and local plans to support targeted industries in life sciences industries and electronic embedded systems will help the region develop a broader mix of basic industries.

SECTION IV - DISASTER AND ECONOMIC RECOVERY AND RESILIENCY



The discipline of Emergency Management has adopted a 4 phase approach to meet the needs of the public before, during and after a disaster including preparedness, response, recovery and mitigation.

Source: FEMA

Preparedness

The National Incident Management System (NIMS) defines preparedness as "a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response." This 'preparedness cycle' is one element of a broader National Preparedness System to prevent, respond to, recover from, and mitigate against natural disasters, acts of terrorism, and other man-made disasters. Ongoing preparedness efforts ensure coordination during times of crisis.

Response

Response activities take place immediately before, during and in the first few days after a major or catastrophic disaster. Then, recovery efforts begin to help the community get back on its feet.

Recovery

The National Disaster Recovery Framework released by FEMA in January of 2010 introduces six recovery support functions that are led by designated federal coordinating agencies. The Recovery Support Functions comprise the coordinating structure for key functional areas of assistance. Their purpose is to support local governments by facilitating problem solving, improving access to resources and fostering coordination among state and federal agencies, nongovernmental partners and stakeholders. The Recovery Support Functions and designated federal coordinating agencies are:

- Community Planning and Capacity Building: Federal Emergency Management Agency
- Economic: U.S. Department of Commerce
- Health and Social Services: U.S. Department of Health and Human Services
- Housing: U.S. Department of Housing and Urban Development
- Infrastructure Systems: U.S. Army Corps of Engineers (fema.gov)

• Natural and Cultural Resources: U.S. Department of Interior

A well thought out recovery phase can allow communities to return to a state of normalcy more quickly and effectively. Without being prepared for the complexity of redevelopment in a compressed timeframe, local officials may struggle with recovery decisions and miss opportunities for public participation in reshaping the community's' future. To become more disaster resilient, local governments should plan for what must happen after emergency rescue and recovery operations are complete. Engaging potential recovery partners and consulting other existing comprehensive plans prior to a disaster creates the opportunity for a unified, timely recovery that leads directly into short and long-term mitigation strategies.

Mitigation

Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters. Mitigation is taking action prior to the next disaster to reduce human and financial consequences. Effective mitigation requires understanding local risks and investing in long-term solutions, however difficult those decisions may be to make. These efforts can break the cycle of disaster damage, reconstruction, and repeated damage. FEMA's efforts are organized into three primary activities that help achieve the highest level of mitigation: risk analysis, risk reduction and risk insurance.

The Lake Agassiz Region has taken mitigation seriously and has aggressively pursued funding opportunities to make significant strides in reducing risks especially related to flood events. County and local officials have familiarized themselves with funding programs and enlist the assistance of LARC when necessary.

Phase I: Pre-Disaster Preparedness

LARC supports and encourages its communities to:

- Engage in pre-disaster recovery and mitigation planning
- Regularly assess the community's risks and vulnerabilities
- Inventory and organize the community's recovery resources
- Engage in business continuity planning
- Ensure resources are available for the elderly and those with special needs
- Identify shelters
- Identify recovery partners, as well as the type of assistance and resources they can provide
- Establish a timeline for recovery activities (immediate, short-term, intermediate, and long-term)
- Develop and disseminate a community evacuation plan
- Establish a communication chain
- Engage the community's residents in the planning and recovery process

North Dakota, specifically the counties in the Lake Agassiz Region have experienced four emergency declarations and thirteen major disaster declarations since 2000. This frequency lends itself to a heightened awareness and significant emphasis on planning and preparedness by communities, counties, and the private sector.

Phase II: Post-Disaster Planning and Implementation

The disaster phases are overlapping and continuous. Understanding roles and responsibilities and engaging public partners throughout the planning and implementation process is the most effective way to accomplish the goals and objectives of a community.

• Disaster Assessment

The Lake Agassiz region is vulnerable to a wide variety of natural disasters including flood, winter storm, summer storm, wild land fire, urban fire, and drought. The region is also susceptible to manmade hazards such as dam failure, critical material shortage, homeland security incident, communicable disease and transportation accident.

A well-developed Multi-Hazard Mitigation plan that utilizes FEMA's HAZUS tool to identify and quantify potential risk to this wide variety of hazards is highly recommended by LARC throughout the region.

Resources

A wide variety of public and private resources may be available throughout the disaster lifecycle. Developing a plan to identify these sources and manage resources offered is critical to effectively meet a community's specific needs and goals. There will be rules, and occasionally, strings attached to external sources of funding and assistance, but a community that has researched the allowable uses of federal and state assistance can better work toward accomplishing its unique redevelopment goals.

Some specific sources of assistance that have been utilized in the Lake Agassiz Region include:

- o Small Business Administration (SBA)
- o HUD and EDA Supplemental disaster funds
- o ND National Guard
- Federal Emergency Management Agency (FEMA)
- North Dakota Department of Emergency Services (NDDES)
- County and Municipal support
- o US Army Corps. Of Engineers (USACE)
- Red Cross
- Salvation Army
- Private Companies

Local Contacts

Local Emergency Managers, Region 5, ND

Dave Rogness	Tricia Kriel
Cass County Emergency Manager	Ransom County Director of Emergency Services
4630 15 th Ave N	PO Box 1024
Fargo, ND 58102	Lisbon, ND 58054
Phone: 701-476-4065	Phone: 701-683-6125
Brett Lambrecht	Sandra Hanson
Richland County Director of Emergency Services	Sargent County Director of Emergency Services
413 3 rd Ave N	PO Box 177
Wahpeton, ND 58075	Forman, ND 58032
Phone: 701-642-7788	Phone: 701-724-6241
Don Huso	Mike Crocker
Steele County Emergency Manager	Traill County Sheriff
PO Box 275	PO Box 429
Finley, ND 58230	Hillsboro, ND 58045
Phone: 701-524-2442	Phone: 701-636-4458

LARC's Role

Lake Agassiz Regional Council's role begins with staying informed. Local jurisdictions often don't have the staff to keep current on regulation changes and potential funding sources. LARC has the opportunity to use state and federal connections and trainings to stay knowledgeable and forward relevant information to cities and counties in the region. After the flood of 1997, LARC acted as the designated flood coordinator for the region, identifying damages, recovery projects and assisting communities in applying for and administering recovery funds through FEMA, HUD and EDA.

LARC assists communities and counties with planning and zoning, important functions in disaster preparedness and mitigation. Currently LARC is assisting Cass County in a Multi-Hazard Mitigation Plan Update to ensure the County remains eligible for FEMA's Hazard Mitigation Grant Program in the future.

LARC's EDA Revolving Loan Fund was capitalized after the 1997 flood event and although the fund is no longer exclusively available to businesses that have experienced disaster it remains a valuable tool for funding after a disaster. LARC's affiliate organization Lake Agassiz Regional Development Corporation (LARDC) has additional lending programs through USDA Rural Development and SBA that have been and will continue to be tools for businesses looking to recover from a disaster. These programs have also been paired with EDA RLF funds allowing LARC and LARDC to provide a more complete financing package for a borrower.

The Council continues to assist communities and businesses in applying for state and federal funding opportunities that become available before and after disasters. Limited resources in small communities and an often declining population to draw from, has proven to be a major hindrance when implementing improvement projects in all phases of a disaster.

SECTION V – CEDS GOALS AND OBJECTIVES – DEFINING REGIONAL EXPECTATIONS

MISSION STATEMENT AND GOAL

TO ASSURE THE LONG-TERM VIABILITY OF THE REGION'S RURAL COMMUNITIES AND TO ENHANCE THE ECONOMIC WELL-BEING OF THE REGION'S RESIDENTS

Objective 1: Further diversify the regional economic base

Economic diversification has long been a principal objective of the regional CEDS. It is the only means by which an agriculturally based economy can evolve and expand. Diversification can stem from farm related industries, particularly in rural areas, or from entirely new industries that have been shown to flourish in the area given inherent location advantages and local support. Rural incomes dramatically fluctuate with farm commodity prices. During good years the region's counties have some of the highest income levels in the nation. During poor years losses in the agricultural sector reverberate throughout the economy.

Objective 2: Stabilize Rural Populations

Population loss and outmigration are the major threats facing rural communities and counties in the Lake Agassiz Region. The regional population is becoming increasingly urban following national trends. However, rural residents continue to prize their way of life and seek ways to preserve and enhance it.

Objective 3: Improve Infrastructure throughout the Region

Communities cannot attract new residents and businesses without adequate infrastructure. While deficiencies in infrastructure are widely recognized, rural communities are at a distinct disadvantage in attempting to meet their needs. Costs are high, sources of funds are becoming ever more limited and the local populations must bear ever greater costs.

Objective 4: Enhance Leadership Resources in Rural Communities

It is readily apparent that communities with strong elected and volunteer leadership generally fare better than those which do not. While not a guarantee of success, strong leadership engages citizens, identifies and addresses problems, plans for the future and encourages change.

Objective 5: Reduce Disaster Impacts throughout the Region

The counties in the Lake Agassiz Region have experienced four emergency declarations and thirteen major disaster declarations since 2000. This frequency of disasters underscores the need to be well prepared and emphasizes the importance of a long term strategy to reduce the impact of future events including direct losses and value of lost time.

SECTION VI – COMMUNITY AND PRIVATE SECTOR PARTICIPATION

Community and private sector participation was garnered by several surveys each with a specific objective. A Financial Institution Survey was geared to determine the availability of traditional credit within the region and the impact of the recession on lending activity. A Community Infrastructure Needs Survey was conducted to determine infrastructure needs and associated costs in the region's rural communities. An on-line Rural Community Survey was conducted to determine attitudes about community needs and leadership.

The decision was made to eliminate community meetings from the process as past experience demonstrated generally poor attendance and failed to elicit views from the general public. Rather, community participation was obtained through the membership of the LARC board and the strategy committee and from respondents to the Rural Community Survey, who by-and-large hold positions of leadership in their respective communities and provide valuable insight into local needs and issues.

LARC has a long and substantive relationship with communities throughout the region. While some are more active than others, support for the organization remains strong.

Private sector involvement was obtained through the Financial Institution Survey and through representation on the strategy committee which is comprised of principally private sector members. Private sector views were also obtained from responses to the Rural Community Survey.

LARC also works with a variety of local and regional partners who assist LARC in implementing the goals of the CEDS, including but not limited to:

- Local non-profit development corporations,
- City economic development departments,
- County jobs development authorities and EDC's,
- Rural utility cooperatives,
- Community banks,
- Small Business Development Center, and the
- NDSU Research and Technology Park.

SECTION VII – STRATEGIC PROJECTS, PROGRAMS AND ACTIVITIES

Objective 1: Further Diversify the Regional Economic Base

• Business Acquisition and Relocation Program

Continue with the successful model of Larinascente Pasta, LLC in Steele County and Heartland Candies, LLC in Richland County in which businesses for sale were evaluated as potential acquisition and relocation candidates. These businesses together currently employ over 30 full time people, create considerable local payroll and add to the local tax base. The program involves identifying companies and preparing evaluations, identifying communities receptive to the program, and identifying local investors.

Participants: LARC staff, business consultants, local development corporations, individual

investors and/or investor groups

Jobs to be created: 5-10

Priority: Medium

Budget: \$50,000 not including cost of acquisition

Funding Sources: LARC Staff time, local JDA's, LDC's, private investors

Timeline: 2013-2014

• Value-Added Agriculture Support

Continue the region's support for value-added agriculture as a principal driver of economic diversification. This support can take a variety of forms including acting as fiscal agent for value-added agriculture projects undertaking feasibility studies with grants from the ND Agricultural Products Utilization Commission, participating in steering committees, and assisting in financing necessary infrastructure for plant development.

Participants: LARC staff, ND Agriculture Products Utilization Commission, CDBG

Program, Local Communities

Jobs to be created: 20

Priority: High

Budget: TBD by project

Funding Sources: TBD by project

Timeline: As projects arise

• Financing Support for Primary Sector Development

Continue financing support as a tool for promoting primary sector development. LARC has a variety of financing tools at its disposal and several are directed largely to support primary sector projects-those that bring wealth into the state and help diversify the economy. In particular, the CEDS activity would concentrate though not be limited to value-added agriculture development, biofuels development, and advanced manufacturing. The region's CDBG and EDA RLF programs target primary sector and will continue to do so throughout the CEDS planning period. Programs at the state level that target primary sector development include the Bank of North Dakota's Partnership Assisting Community Expansion (PACE) Program and the North Dakota Development Fund. An

array of local and federal programs also contributes to the ability of the region to successfully support economic diversification.

Participants: LARC, LARDC, USDA, SBA, Bank of North Dakota, ND Department of Commerce, EDA, Local Development Organizations, Red River Corridor Fund, ND

Opportunity Fund, Local Communities

Jobs to be created: 20

Priority: High

Budget: TBD by project

Funding Sources: TBD by project

Timeline: As projects arise

• Regional Small Business Center Incubator Program

Reinvigorate the Regional Small Business Center Program through a variety of programs and activities designed to support the Center's tenants.

Participants: LARC, LARDC

Jobs to be created: 5
Priority: Medium

Budget: \$10,000

Funding Sources: LARC, EDA Planning Grant, Regional Small Business Center

Timeline: Ongoing

• Center for Technology Enterprise—NDSU Research and Technology Park

Reinforce the relationship between the Center for Technology Enterprise (CTE), NDSU's technology incubator and the region. The CTE is the locus of high technology business start-ups in the region and offers physical space and entrepreneurial support. While venture capital funding is available to early and middle stage companies on high growth trajectories, several regional programs (loan vs. equity) may be helpful to those companies that are generally considered start-ups and find bank financing and equity capital difficult to obtain.

Participants: LARC, LARDC, SBDC, Consultants, CTE

Jobs to be created: 10

Priority: Medium

Budget: LARC Staff time

Funding Sources: LARC, EDA Planning Grant

Timeline: Ongoing

Objective 2: Stabilize Rural Populations

• Outreach Program to Financial Institutions - VITAL

Develop an outreach program to community banks. LARC's financial institution survey found that a number of banks in the region, particularly in smaller communities, do not use local, state or federal financing programs that can make projects viable and reduce risk. Those communities with active banks demonstrate more community growth and projects than those which do not. This program would entail written materials and on-site visits with local financial institutions.

Participants: LARC, Volunteer Leaders, NDSU Extension Service, Consultants, Banks,

Local Development Corporations

Jobs to be created: No direct job creation

Priority: Medium

Budget: LARC Staff time

Funding Sources: LARC, EDA Planning Grant

Timeline: Ongoing

Leadership Mentoring Program - See Objective 4

• Intergenerational Transfer of Business Ownership—Support and Funding

Promote the availability of funding for business ownership transfers to a younger generation of entrepreneurs. This activity is potentially one of the most critical for maintaining business districts, community services and rural populations. Several communities in the region have employed innovative financing with considerable success to assist business transfers. Support for this effort is crucial in that young would-be business owners typically lack equity and are deemed high risk by financial institutions

Participants: LARC, Volunteer Leaders, NDSU Extension Service, Consultants, Banks,

Local Development Corporations

Jobs to be retained: 20 Jobs to be created: 10

Priority: High

Budget: TBD by project

Funding Sources: LARC, EDA Planning Grant

Timeline: As projects arise

Objective 3: Improve Infrastructure throughout the Region

Infrastructure for Business and Industry—Support and Funding

Continue support for infrastructure development that supports business and industry. Because of the lack of developed industrial sites, new businesses and industries generally require infrastructure development, including water, sewer and roads. The region has supported infrastructure financing through the Community Development Block Grant Program, EDA Public Works and Economic Adjustment Programs and local TIF districts.

Participants: LARC, CDBG, USDA, State Drinking Water Revolving Loan Fund, State

Revolving Loan Fund, ND DOT, State Water Commission, Local Communities

Jobs to be created: 50

Priority: High

Budget: TBD by project

Funding Sources: See above Timeline: As projects arise

• Community Infrastructure Improvements –Support and Funding

The Lake Agassiz Regional Council Board of Directors continues to rate infrastructure improvement among the highest priorities in the region. A board survey conducted in February 2013 revealed water system improvements to be the highest ranked need, with drainage/storm sewer improvements, sanitary sewer system improvements and solid waste disposal improvements rankings 7th, 8th and 9th respectively out of 38 earlier identified needs. (See Board Priorities –Appendix xxx). This dovetails fairly well with the community infrastructure survey. While federal resources are shrinking, the 2013 North Dakota Legislature has allocated funding for infrastructure development, and it is incumbent upon LARC to seek out all available resources.

Participants: LARC, CDBG, USDA, State Drinking Water Revolving Loan Fund, State Revolving Loan Fund, ND DOT, State Water Commission, Local Communities

Jobs to be created: Construction jobs, no direct FTE's

Priority: High

Budget: TBD by project

Funding Sources: See above

Timeline: 2013, annual funding of projects

Objective 4: Enhance Leadership Resources in Rural Communities

• Leadership Mentoring Program

Organize a leadership mentoring program that targets communities which have unrealized potential. The program would be geared primarily to volunteer leadership such as local development corporations and would consist of presentations by leaders in active communities, planning exercises of a community-wide nature and follow-up.

Participants: LARC, Volunteer Leaders, NDSU Extension Service, Consultants

Jobs to be created: No direct job creation

Priority: Medium

Budget: \$5000

Funding Sources: LARC EDA Planning Grant, Local Development Corporations

Timeline: Begin 2013 and continue into 2014

Objective 5: Reduce Disaster Impacts throughout the Region

• Plan Development and Maintenance — Encouragement and Assistance

Continue to assist with coordination and encourage counties and local governments to maintain hazard mitigation and other preparedness plans. The planning process not only allows for more effective and strategic moves forward but approved plans in some instances allow access to funding for improvement projects.

Participants: LARC, ND Department of Emergency Service, County and Local

Governments

Jobs to be created: No direct job creation

Priority: Medium

Budget: LARC Staff time

Funding Sources: LARC, Cass County, FEMA, ND Department of Emergency Services

Timeline: Ongoing

The objectives outlined above will be achieved through implementation of LARC's Work Program in concert with cooperating professional staff, volunteers and elected officials in communities, counties and organizations throughout the region. The CEDS effort takes into account the plans of other organizations (e.g. NDSU Research and Technology Park, Greater Fargo Moorhead EDC, Traill County EDC, Wahpeton EDC, City of West Fargo) and supports projects and proposals that implement those plans. Cooperation and coordination are the key elements integral to furthering economic growth and creating new jobs and wealth, while growing the population and retaining young people.

Lake Agassiz Regional Council Work Program, FY 2013

LARC will implement new strategies that are adopted during the CEDS update. New strategies and action steps will be incorporated into the work program as the year progresses. The work program also includes the activities outlined below.

• Planning

o Regional Economic Development Planning

Lake Agassiz Regional Council is responsible for the regional economic development planning process in the six-county region. CEDS related work will include:

- Holding an annual strategy committee meeting near year-end to review goals and objectives and progress in meeting goals and objectives.
- Reviewing and re-evaluating CEDS as conditions in the region change for future updates.
- Submitting the Annual CEDS report by December 31, 2013.
- Local Economic Development Planning

LARC assists with local planning efforts contingent upon requests from local units of government and non-profit organizations.

Provide assistance to local economic development entities as requested.

• Implementation

Implementation includes a variety of activities in the broad categories of capacity building, financial analysis and data gathering, infrastructure improvements and business development financing

- Capacity Building
- Continue to promote value added agricultural projects as a principal method of increasing wealth and diversifying the local economy.
- Continue the existing relationship with the NDSU Research and Technology Park. Upon request assist incubator graduates in building or acquiring additional space focusing on nearby rural communities.
- Assist communities and counties in preparing proposals for presentation to prospective industries
- Coordinate with utility company development professionals and city engineers to assist local development organizations and communities in assessing public facilities capacities and needs.

- Coordinate with regional developers and LDC board members at the local level to discuss common problems and strategies and to maintain open communication.
- Continue and promote the Regional Small Business Center Incubator Program. The incubator provides a full range of services and activities to assist resident businesses. Tenants also have access to the financing expertise of the LARC staff. Referrals are also made to other appropriate business assistance programs.
- Feasibility Analysis
- Participate in feasibility studies of new or expanding industries, as they arise, including as described above, the feasibility of purchasing and moving suitable businesses.
- Identify one company per year with the potential to be purchased and relocated to North Dakota. The effort will implement the Rural Business Acquisition Model.
- Study the potential of purchasing and relocating a cake packaging and bakery supply company currently located in Minnesota. A feasibility study to determine whether the company is a viable relocation candidate would be conducted prior to a community or investor group pursuing the company further.
- Study the feasibility of a Sargent County Natural Gas Pipeline Great Plains Natural Gas (GPNG) continues to study the feasibility of a natural gas line extension that would bring natural gas from Milnor in northern Sargent County to the Bobcat Co. manufacturing plant in Gwinner. GPNG is also examining the feasibility of extending the line west from Gwinner to serve Oakes in Dickey County.
- Manufacturing and Wastewater Usage Feasibility Study Evaluate results of current study completed in Richland County to determine viability of processed wastewater as water source for new or expanding industry.
- Northern Plains Nitrogen- A steering committee made up of corn growers with input from fertilizer industry consultants has decided to proceed from feasibility to the business planning stage for a billion dollar nitrogen fertilizer plant to be located within the tri-state area of North Dakota, South Dakota and Minnesota. LARC will continue to manage member investments and an Agricultural Products Utilization Commission (APUC) grant for the group through the balance of 2012 and a portion of 2013.
- o Infrastructure Improvements

Seek financing sources for infrastructure expansions that will serve new or expanding businesses and industries, including individual sites and industrial areas and parks. Assist communities and counties in preparing applications for such projects.

- Sargent County Natural Gas Line –If the study described above proves favorable and Bobcat signs on, LARC will assist in seeking sources of financing.
- Infrastructure development projects that principally benefit business and industry projects as they arise.
- Financial Packaging and Business Plan Assistance
- Develop financial packages and coordinate financing activities for individual businesses seeking both public and private sector financing. Concentrate on projects that will diversify the local and regional economic base and save or expand essential rural community services.
- Caterpillar Expansion (West Fargo, Cass County) A \$50 million, 225,000 square foot expansion project that will create 250 jobs over the next three years was slated for completion in June 2012. CDBG funds originally anticipated for Third Ave NW and associated infrastructure will now be applied to equipment purchases by the company taking place into 2013.
- Grocery Store (Cass County) Owner of grocery store in Casselton is considering building a new store and expanding inventory. LARC will assist in developing financing plan.

- Hankinson Hardware Hank (Richland County) –Owners have purchased land downtown Hankinson and are in the planning stages of a new building. The current location is rented and lacks the space necessary to expand inventory. When owners are ready to move forward with building funding will be considered through a variety of programs.
- Fort Ransom General Store (Ransom County) –The general store in this community of 70 people in the scenic Sheyenne Valley closed in late summer. The store's closing also means the loss of retail gas and a bank substation. Community members have come together to save these critical services. The City is working toward purchasing the building and equipment and leasing the space to a manager who would own the inventory. CDBG funding is being considered by the City.
- Cake packaging manufacturing and bakery supply company LARC will assist in developing a funding plan to enable the company to relocate and operate in a North Dakota location. This element is contingent upon the analysis required to determine that the company is a viable relocation candidate.
- Steele County Business Acquisition Local food manufacturer may acquire an existing food company in the county with plans to expand the acquired company. The project is at a very preliminary stage. LARC may assist in developing the financing package.
- Farmers' cooperative diversification An existing food processing coop is exploring the idea of adding molasses de-sugarization to its current facilities in Richland County. Should the project move forward it would be a substantial investment creating approximately 20 new FTEs. LARC may assist with developing a financing package.
- Promote financing options to NDSU Research and Technology Park tenants, most of whom are in start-up phase in need of capital.

LARC will also supply the Economic Development Representative with timely information on plant closures, prospective plant closings and the number of employees affected.

SECTION VIII - CEDS PLAN OF ACTION

LARC will be the lead agency in implementation of the CEDS, but will engage many partners in the effort to meet the overall regional goal of assuring the long-term viability of the region's rural communities and enhancing the economic well-being of the region's residents. The CEDS implements not only the goal and objectives of the LARC region but also state and local plans. Herewith is a sampling of those plans and relevant objectives:

State and Local Plans

- Cass/Clay Economic Plan—Greater Fargo-Moorhead EDC
 - o Identify target technologies that can drive local and regional economic growth such as embedded systems and vaccine development
 - o Develop and grow entrepreneurial infrastructure
 - Implement STEM strategies
- North Dakota Economic Development Strategic Plan, 2010-2020—North Dakota Economic Development Foundation
 - Create, attract and retain quality jobs and workforce in targeted industries and high demand occupations such as advanced manufacturing, technology based businesses, value added agriculture, tourism and energy
 - o Accelerate innovation and entrepreneurship in targeted industries and emerging technologies
- North Dakota Workforce Development and Training Strategic Plan, 2011-2013—North Dakota Division of Workforce Development, ND Department of Commerce
 - o Continue developing the State's targeted industries
 - Support initiatives that foster a culture of entrepreneurship
 - o Help existing business prepare for a smooth transition from one generation to the next
 - Cultivate a technically skilled workforce
 - Improve access to capital
 - o Develop an entrepreneurial culture that encourages innovation
 - O Targeted industries: advanced manufacturing, biotechnology manufacturing, agricultural biotech, agriculture related technology manufacturing, value-added agriculture
- NDSU Research and Technology Park Strategic Plan—North Dakota State University Research and Technology Park
 - Achieve successful technology based business development and broaden the economic base of North Dakota through partnerships with international, national and regional centers of excellence, high technology based businesses and the research community at NDSU
- Lake Agassiz Resource Conservation and Development Area Plan Lake Agassiz Resource Conservation and Development (Note: the RC&D Program was cancelled by USDA in 2011, however the plan is still relevant)

o Improve the quality of life in the Lake Agassiz Region by improving or increasing recreational and economic opportunities, community services and leadership capabilities

Recurring Themes

• Targeted Industries

State and local development officials have long recognized the importance of identifying industries that have the potential to flourish in North Dakota. Those industries that show promise for the Lake Agassiz Region include advanced manufacturing, biotechnology manufacturing, agriculture technology manufacturing, vaccine development, embedded electronic systems and value added agriculture.

• Entrepreneurship

All of the plans identified above have spelled out the importance of developing and sustaining a culture of entrepreneurship, and such efforts have been implemented through a variety of programs including Innovate ND (an entrepreneurship competition) conducted by the ND Department of Commerce, the Center for Innovation at the University of North Dakota, the Center for Technology Enterprise in the NDSU Research and Technology Park, and financing programs that target start-up enterprises at both the state and local levels. The ND Small Business Development Center also works one-on-one with entrepreneurs and business start-ups.

• Workforce Development

State and local agencies recognize that matching the skills of the workforce with the skills required by business and industry is an important task in furthering economic diversification and growth in technology related sectors. North Dakota's Division of Workforce Development cites cultivating a technically skilled workforce as one of its paramount objectives. The Cass/Clay Economic Plan identifies STEM strategies for local school districts and emphasizes STEM curricula in the middle and upper grades with the goal of more students entering the science, engineering and math fields, the long-term goal of which is to develop a technically proficient workforce.

LARC PLAN OF ACTION

THE CEDS PLAN OF ACTION ASSURES THAT PROJECTS UNDERTAKEN:

- Will conform to all applicable environmental requirements
- Will conform to all local and state requirements including flood plain ordinances, local comprehensive plans, zoning and subdivision ordinances, easements and rights-of-way, storm water discharge permits etc.
- Will further the mission and objectives of the CEDS

• Business Acquisition and Relocation Program

- o Identify at least two acquisition/relocation candidates during the CEDS period.
- o Identify communities with the resources and leadership capability to become involved in the effort.
- o Target: Successfully acquire and relocate one company to a rural community

• Value-Added Agriculture Support

- Continue to act as fiscal agent for ND Agricultural Products Utilization Commission grants for value-added agriculture projects in the region
- o Participate in steering and organizing committees
- Provide financing for infrastructure to support value-added agricultural development
- o Provide direct loans as applicable to the size and scale of value-added projects
- Work with local communities and the ND Department of Commerce in developing responses to RFP's for value-added projects

• Primary Sector Development Support

- o Provide direct loans to support primary sector business development and expansion projects
- o Work closely with local, state and federal partners to develop attractive financing packages
- Work with local communities and the ND Department of Commerce in developing responses to RFP's primary sector projects

• Regional Small Business Center Incubator Program

- o Develop and implement educational seminars for incubator tenants
- o Provide networking opportunities and entrepreneurship resources for tenants
- Educate tenants as to financing sources available through LARC and LARDC's programs including SBA Microloan and EDA RLF
- Develop stronger relationship with NDSU's Center for Technology Enterprise (CTE) through presentations of financing options and opportunities which may present themselves in rural communities upon graduation
- o Refer technology based start-ups in the region to the CTE's Virtual Incubator

• Outreach Program to Financial Institutions

- Develop written materials, including sources of public funding, sample projects and benefits to local communities
- o Target specific banks in communities throughout the region and encourage participation.

• Support for Intergenerational Transfer of Ownership

O Work with financial institutions to support the acquisition of existing businesses in rural communities by a younger generation of entrepreneurs

• Support and Fund Infrastructure for Business and Industry

 Continue to use the Community Development Block Grant Program and other resources to the greatest extent possible to fund essential infrastructure for business and industry development and expansion, including but not limited to identified target industries.

• Support and Fund Community Infrastructure Improvements

- o Continue to use the Community Development Block Grant Program to the greatest extent possible to fund needed municipal infrastructure improvements
- O Conduct a community infrastructure survey every other year beginning in 2013 that identifies types of projects needed, timetable for implementation and estimated cost
- o Seek out and partner with other sources of funding to help implement projects
- o Target: Fund two to three projects per year, depending on available resources

• Leadership Mentoring Program

- Develop a pilot mentoring program that could be deployed in one community per year. The
 program may consist of presentations by volunteer leaders from successful communities,
 planning sessions and follow-up.
- o Target: Development in 2013 and offering to begin in 2014

• Plan Development and Maintenance — Encouragement and Assistance

- o Continue consulting on the Cass County Multi-Hazard Mitigation Plan. Receive final approval before the previous plan expires on January 14, 2014.
- Encourage Steele County, the only county in the region not covered by a Multi-Hazard Mitigation Plan to complete one.

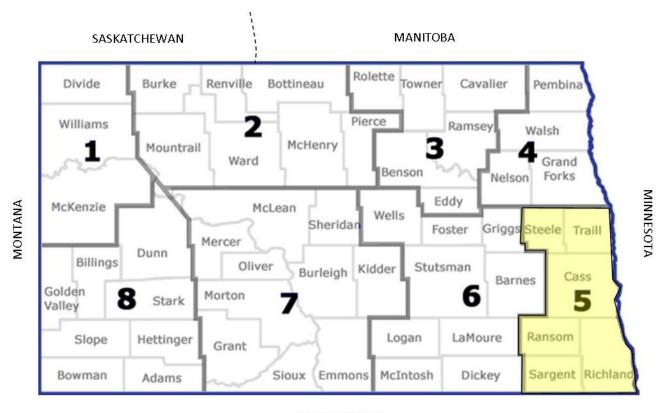
SECTION IX – PERFORMANCE MEASURES

Performance measures include:

- Number of jobs created
- Number and types of investments undertaken in the region
- Number of jobs retained
- Amount of private sector investment
- Changes in the economic environment of the region.
- Number of jobs created in investments in the region in which public financing played a key role in bringing the investments to fruition;
- Number of jobs retained in investments in the region in which public financing played a key role;
- Estimated private investment in projects in the region in which public financing played a key role;
- The number of K-12 students enrolled in STEM curricula in 2017 vs. 2013;
- County median household income, adjusted for inflation, 2017 vs. 2013;
- County median household income as a percentage of national median, 2017 vs. 2013;
- Regional median age, 2017 vs. 2013;
- Population trends by county;
- Net migration in rural counties;
- Number of technology companies graduating from Center for Technology Enterprise (North State University Technology Incubator), by year;
- Number of loans to primary sector businesses using public financing programs, by year

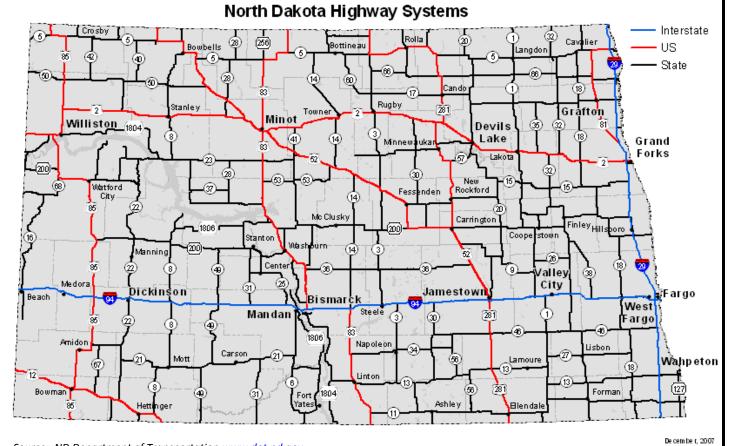
FIGURES

Figure A: Lake Agassiz Region



SOUTH DAKOTA

Figure B: North Dakota Highway System



Source: ND Department of Transportation <u>www.dot.nd.gov</u>

Figure C: North Dakota Railroads

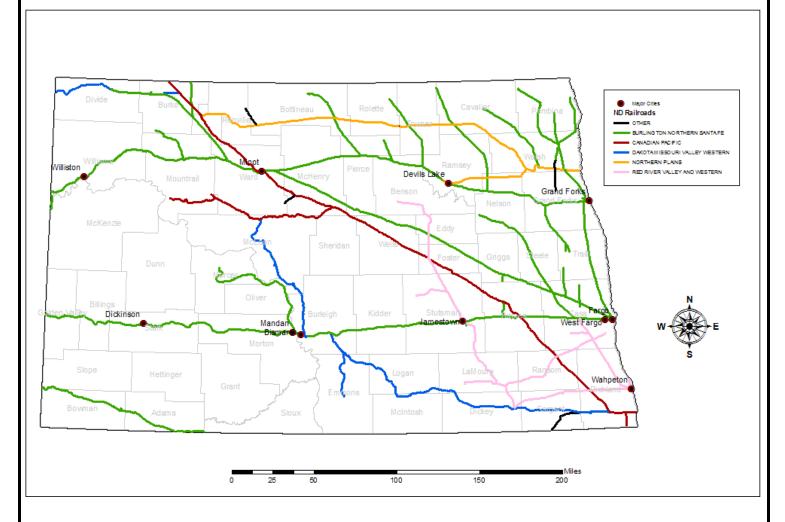
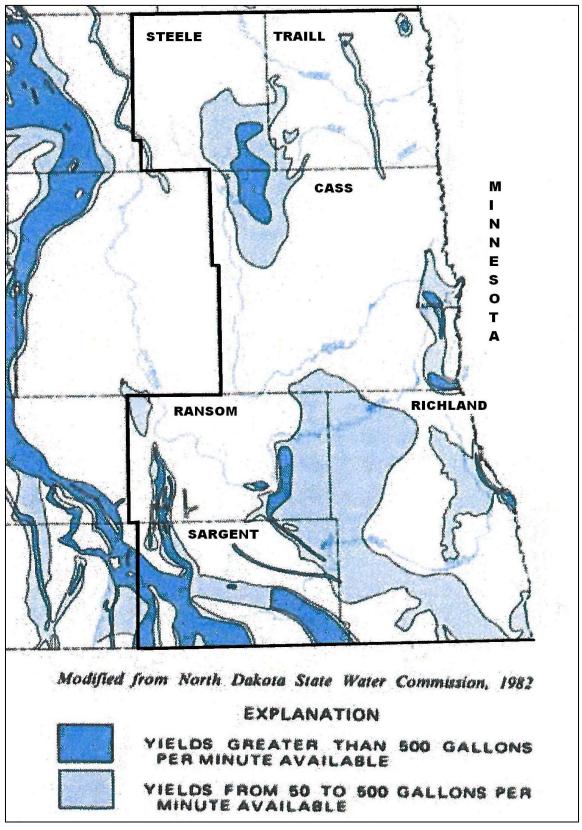
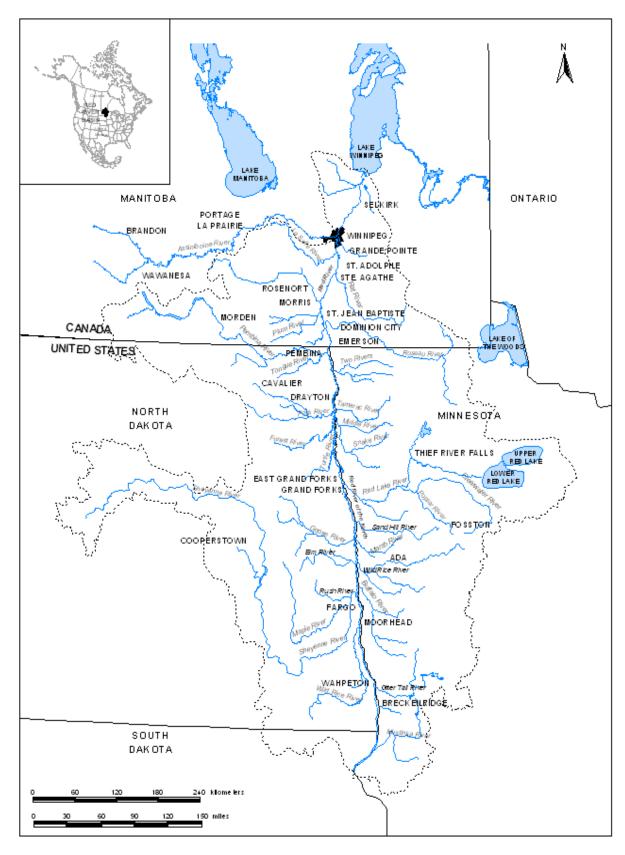


Figure D: Major Unconsolidated Aquifers



Source: North Dakota State Water Commission

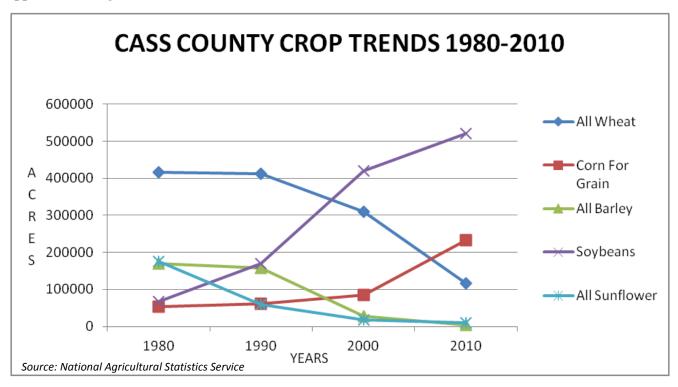
Figure E: Red River Basin

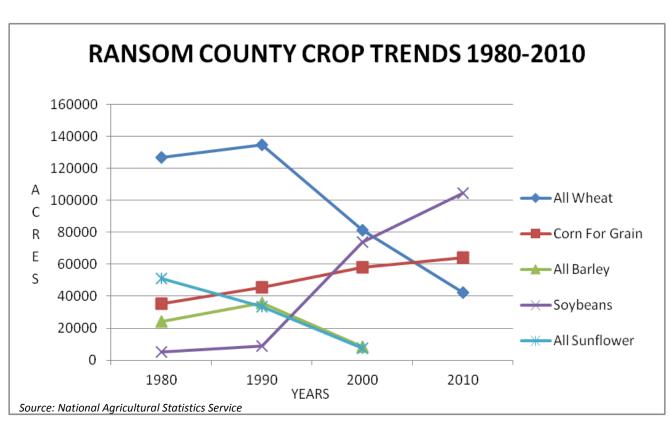


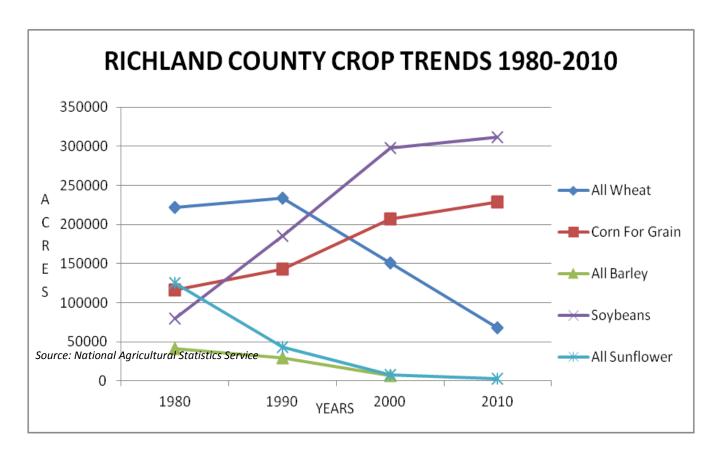
Source: Red River Basin Commission

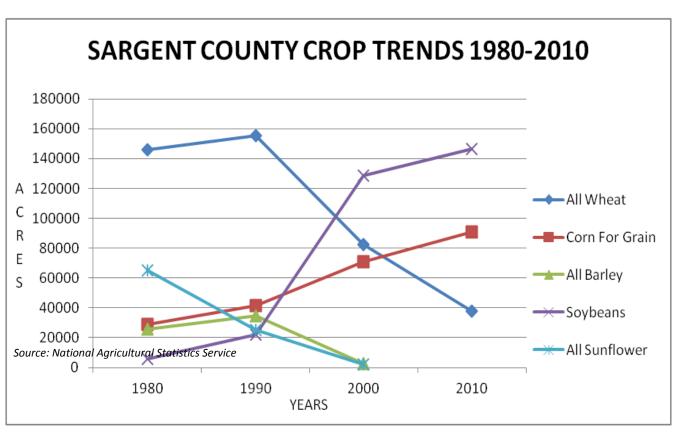
APPENDIXES

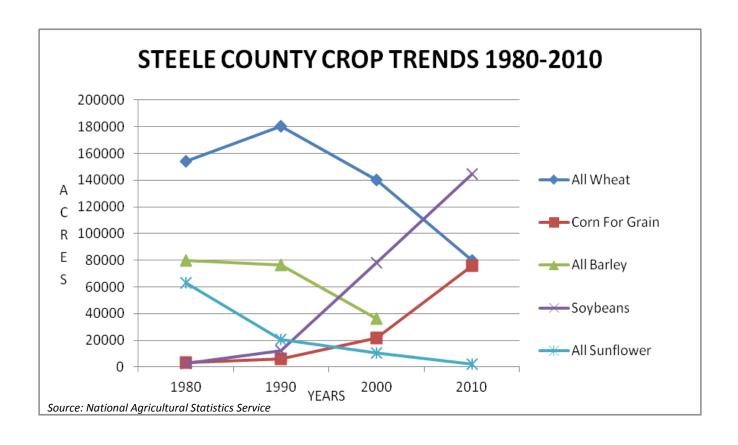
Appendix A: Agriculture Trends

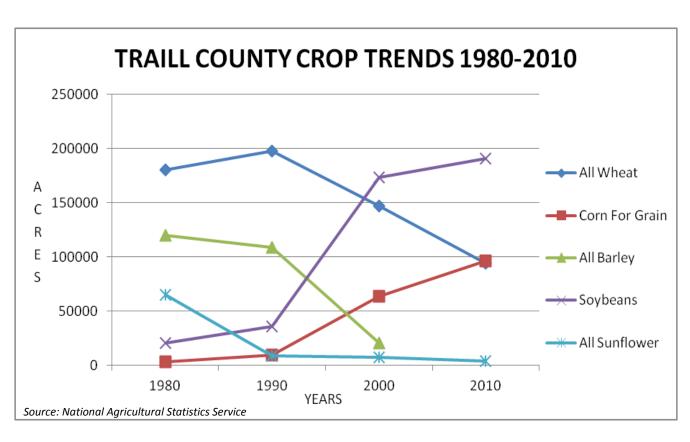


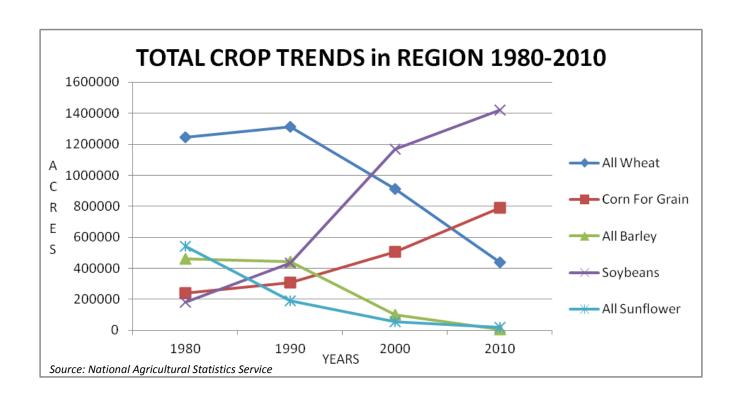


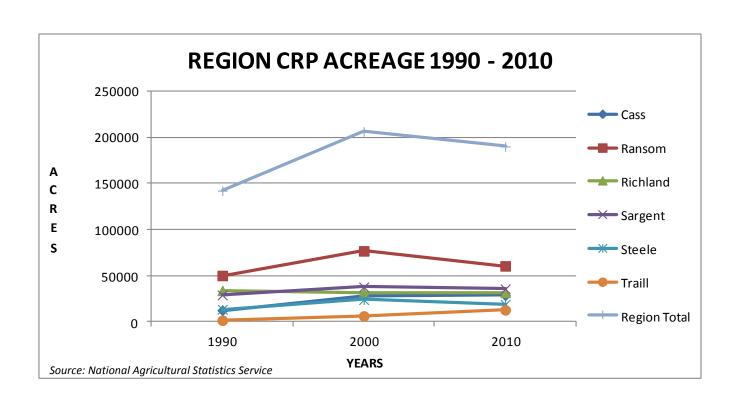


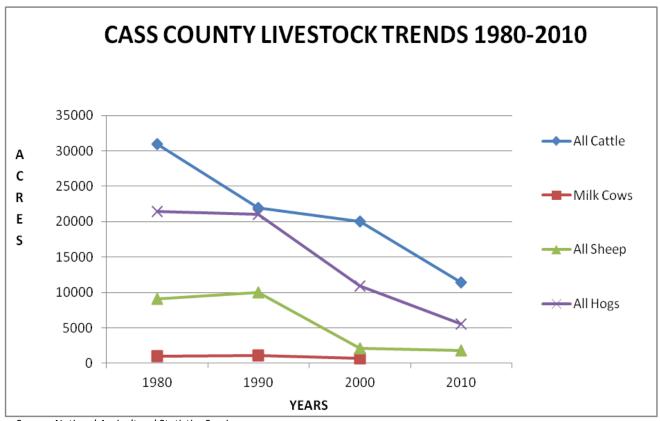




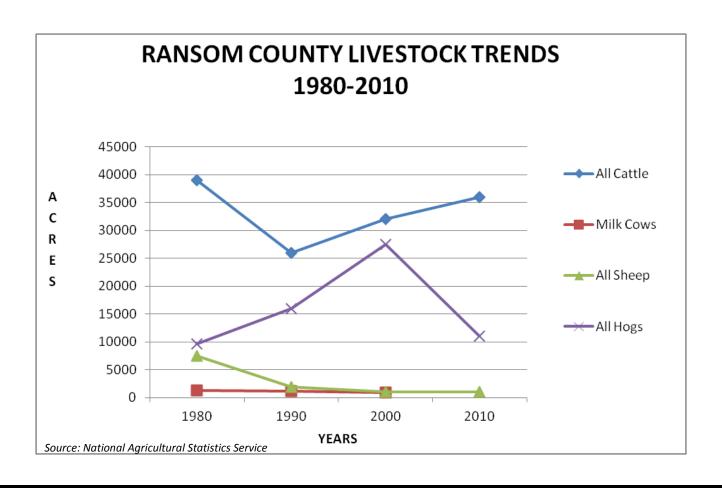


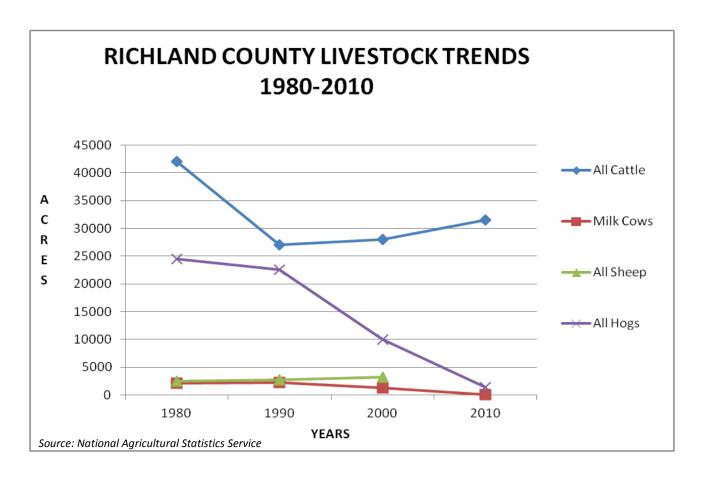


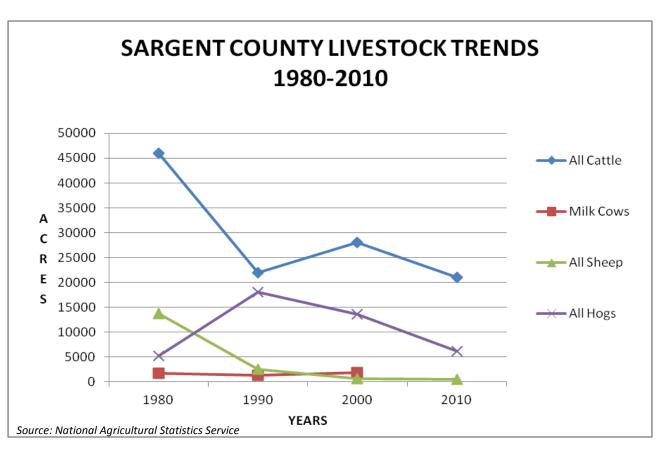


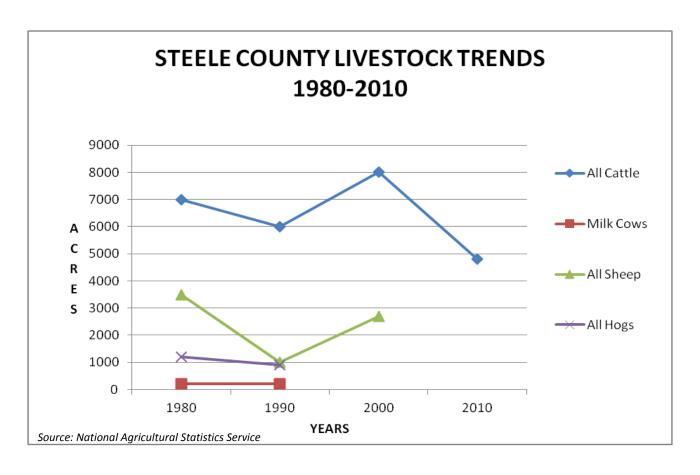


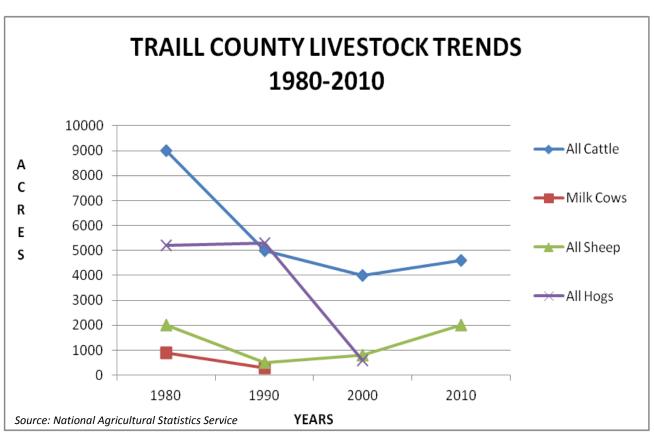
Source: National Agricultural Statistics Service

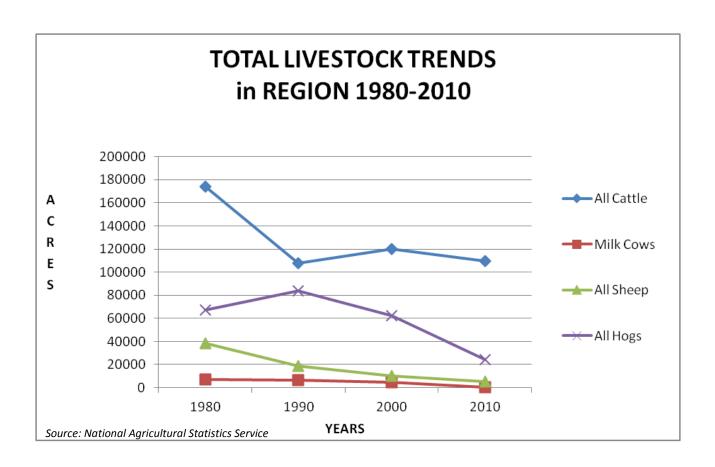












Appendix B: Community Infrastructure Survey

• Sample Survey

Community Survey

Region V

Comprehensive Economic Development Strategy

Please provide as detailed and accurate information as possible. This survey will be used as a tool to develop the Comprehensive Economic Development Strategy for the Lake Agassiz Region.

General Information

1. Name of City:	2. Population
Survey Completed By:	1990:
Date Completed:	2000:
	2008 Estimate:
3. Name of Mayor:	4. Name of Auditor:
Phone Number:	Phone Number:
Email Address:	Email Address:
	Web Address:
5. Names of City Council Members:	

Economic Development Information

1. Has a Local Development Corporation been es	tablished in your community?
Yes No	
If yes, is it currently active? Yes No	
Contact Person:	
Phone #:	
2. Does the community have its own strategic pl	an?? Yes No
If yes, when was it written?	
3. List the five largest local employers and the nu	ımber employees:
Employer	Number of Employees
1.	
2.	
3.	
4.	
5.	
If the city has a business dire	ectory, please attach.
If the city has a business dire 4. Are any privately owned buildings available and development in the city? Yes No	
4. Are any privately owned buildings available a	nd suitable for business or industrial
4. Are any privately owned buildings available and development in the city? Yes No	nd suitable for business or industrial
4. Are any privately owned buildings available and development in the city? Yes No If yes, please briefly describe and provide a contact.	nd suitable for business or industrial act person and phone number:
4. Are any privately owned buildings available and development in the city? Yes No If yes, please briefly describe and provide a contact of the contact of	nd suitable for business or industrial act person and phone number:
4. Are any privately owned buildings available and development in the city? Yes No If yes, please briefly describe and provide a contact of the contact of	nd suitable for business or industrial act person and phone number:
 4. Are any privately owned buildings available and development in the city? Yes No If yes, please briefly describe and provide a contain Description 1. 2. 	nd suitable for business or industrial act person and phone number:
 4. Are any privately owned buildings available and development in the city? Yes No If yes, please briefly describe and provide a contain Description 1. 	nd suitable for business or industrial act person and phone number:
 4. Are any privately owned buildings available and development in the city? Yes No If yes, please briefly describe and provide a contain Description 1. 2. 	nd suitable for business or industrial act person and phone number:
 4. Are any privately owned buildings available and development in the city? Yes No If yes, please briefly describe and provide a contain Description 1. 2. 3. 	nd suitable for business or industrial act person and phone number:
 4. Are any privately owned buildings available and development in the city? Yes No If yes, please briefly describe and provide a contain Description 1. 2. 3. 	nd suitable for business or industrial act person and phone number:

	the city or localle for a busines	-	-	own any bu Yes	uildings tha No	at are suitable and
If yes, p	olease complete	e below:				
BUIL	DING #1					
	Name or Other	Identification	ı:			
	Address or Oth	er Location Id	lentifier:			
	Owner:					
,	Type of Constru	uction:				
	Square Footage	e :				
	Overhead Door	: Yes	No			
	Loading Dock:	Yes	No			
	Sidewall Height	t :				
,	Type of Electric	al Service:				
	For Sale:	Yes	No			
	ŀ	f yes, current	sale price: \$_			
	For Lease:	Yes	No			
	ŀ	f yes, current	lease price pe	r square foo	ot: \$	
,	What is the cur	rent zoning?_				
	Condition:	Excellent	Good	Fair	Poor	Very Poor
,	What general t	ypes of impro	vements need	l to be mad	e in order t	o occupy?
	Please describe	::				

If you have other buildings, please attach additional sheets.

6. Does the city or local development corporation own any vacant land in the community that is suitable for business or industrial development? Yes No
If yes, please complete the following information for each parcel:
PARCEL #1
Owner: City LDC Other:
Address or Location:
Size of Parcel:
Clear Title: Yes No
If no, does owner intend to obtain clear title within the next year? Yes No Municipal Services to site include (Circle all that apply):
Water Sewer Road
Is Rail Service available? Yes No
What is the current zoning?
Not Zoned Commercial Residential Agriculture Industrial
Other
Can the Property be Subdivided? Yes No
Current Purchase Price: \$
What general types of improvements need to be made in order to occupy?
Please describe:
Please attach additional sheets for additional parcels.
7. Does the community have a developed industrial park (water, sewer, street)?
Yes No
8. Does the community have a Renaissance Zone?
If yes, what year was it established?
How many projects have been completed?

Utilities Information

Please identify the following systems used in your community:										
Principal D	omestic	Water 9	Source	e						
Well(s)		Rural '	Water	System	Surface Water		С	Other		
Water Trea	itment									
Chlorine	Chemic Treatm Plant	_	Mechanical t Treatment Plant			Rural Treatment Plant		Other		None
Transmissi	on		•				<u>'</u>			
Clay Tile		Р	VC			CIPP		Oth	er	
Water Stor	age							<u>'</u>		
Reservoir #	' 1	А	bove	Ground		Below Ground		Gallons		
Reservoir #	[‡] 2	А	Above Ground		Below Ground	Below Ground		Gallons		
Reservoir #	[‡] 3	А	Above Ground		Below Ground		Gall	Gallons		
Reservoir #	[‡] 4	А	Above Ground			Below Ground	Below Ground		ons	
Sewage Di	sposal Sy	stem						·		
Municipal S	Sewer					On Site (Septic S	Systen	ns)		
Recycling F	Program									
Yes						No				
Storm Wat	er Dispo	sal Syst	em							
Undergrou	ınd					Surface-type drainage				
Streets										
All Paved Only M			lain	ain Roads Paved None Paved						
Electric System										
Ottertail Xcel R			Ru	Rural Co-op Municipal						
Broadband Internet Access										
Yes			No							

Please identify the condition of the following utilities in your community:							
Good – needs no improvement or expansion within next five years							
Fair – needs some improvement or expansion within next five years							
Good – needs improvement or ex	pansion within next tw	velve months					
Domestic Water Source	Good	Fair	Poor				
Describe system issues or prob	lems:						
Transmission Lines	Good	Fair	Poor				
Describe system issues or prob	lems:						
Water Treatment System	Good	Fair	Poor				
Describe system issues or prob	Describe system issues or problems:						
Water Reservoirs	Good	Fair	Poor				
Describe system issues or prob	lems:						
bescribe system issues or prob	iciis.						
Sewage Disposal System	Good	Fair	Poor				
Describe system issues or problems:							
Lagoon	Good	Fair	Poor				
Describe system issues or prob	lems:						

Storm Sewer System	Good	Fair	Poor					
Describe system issues or prob	Describe system issues or problems:							
	_		Γ					
Street System	Good	Fair	Poor					
Describe system issues or prob	lems:							
Electric System	Good	Fair	Poor					
(municipal only)								
Describe system issues or problems:								

Please describe improvements that have been made on the following systems since 2000:						
Municipal Water System						
Project	Year	Approximate Cost				
1.						
2.						
3.						
Water Reservoirs						
Project	Year	Approximate Cost				
1.						
2.						
3.						

Sanitary Sewer System		
Project	Year	Approximate Cost
1.		
2.		
3.		
Storm Sewer System		
Project	Year	Approximate Cost
1.		
2.		
3.		
Street System	,	
Project	Year	Approximate Cost
1.		
2.		
3.		
Electric System (municipal only)		
Project	Year	Approximate Cost
1.		
2.		
3.		
Please describe improvement needed by 2014 for t	he following s	ystems:
Municipal Water System		
Project	Year	Estimated Cost
1.		
2.		
3.		

Water Reservoirs		
Project	Year	Estimated Cost
1.		
2.		
3.		
Sanitary Sewer System		
Project	Year	Estimated Cost
1.		
2.		
3.		
Storm Sewer System		
Project	Year	Estimated Cost
1.		
2.		
3.		
Street System		
Project	Year	Estimated Cost
1.		
2.		
3.		
Electric System (municipal only)		
Project	Year	Estimated Cost
1.		
2.		
3.		

Please prioritize five infrastructure improvement needs for 2014:					
Category	Improvement	Cost			
1.					
2.					
3.					
4.					
5.					

Housing

Approximately how many homes are for sale in the community?					
2. What is the condition of a	vailable homes?				
Poor Adeq	uate	Good			
Additional Comments	5:				
3. Approximately how many	homes/apartme	nts are presently available for r	ent?		
4. What is the condition of a	vailable rental p	roperty?			
Poor Adeq	uate	Good			
Additional Comments	::				
5. Has the community develo	ped new resider	ntial subdivisions since 2000?	Yes	No	
If yes, how many lots?					
How many of these are pres	ently occupied? _				

Public Services

1. Does the community have a hospital? Yes No								
If yes, is emergency care available? Yes No								
Please describe other services provided:								
If no, approximately how far is the nearest hospital?								
5 miles 10 miles 15 miles 20 miles	25+ miles							
2. Does the community have a medical clinic? Yes No								
If yes, what are the hours of operation?								
Who primarily treats patients?								
Physicians Physician's Assistants Oth	er							
If no, approximately how far is the nearest medical	clinic?							
5 miles 10 miles 15 miles 20 miles	25+ miles							
3. Does the community have a local pharmacy? Yes No								
4. Does the community maintain an ambulance service? Yes	No							
If yes, are all participants volunteers? Yes No								
Number of volunteers								
Number of EMTs								
5. Does the community maintain a fire department? Yes	No							
If yes, are all participants volunteers?? Yes No								
Number of volunteers								
Number of employees								
6. Does the community have local police protection? Yes	No							
If yes, how many officers are employed? 1-5	6-10 10+							
If contracted with other police department of the cou how many officers are assigned to the community?	nty sheriff's department, _							
7. Does the community have a community center? Yes	No							
If yes, what is its condition? Good Fair	Poor							

8. Does the	community have a senior citi	zens center?	Yes	No		
If yes	s, what is its condition?	Good	Fair	Poor		
9. Does the	community have a youth/tee	n center?	Yes	No		
If yes	s, what is its condition?	Good	Fair	Poor		
10. Are licer	nsed day care centers and/or p	oroviders in th	ne commun	ity?	Yes	No
If yes	s, how many facilities?					
How	many children can the facilitie	es accommoc	late?			
11. Does the	11. Does the community have any arts/cultural organizations? Yes					
If yes	s, please list:					
	Organization	Conta	ct Name		Phone	
1.						
2.						
3.						

Please return this survey by **Tuesday, June 30, 2008**:

Mail: Lake Agassiz Regional Council

417 Main Ave. Fargo, ND 58103

Fax: 701-235-6706

Email: Courtney@lakeagassiz.com

Feel free to contact us if you have any questions or concerns at 701-235-5373.

Thank you for your participation!

• Survey Respondents

Sixty-four surveys were mailed to city auditors across the region: 26 in Cass County, five in Ransom County, 15 in Richland County, six in Sargent County, four in Steele County, and eight in Traill County. Thirty-three were returned. See below for details:

City	County	Survey Returned
Alice	Cass	Yes
Amenia	Cass	Yes
Argusville	Cass	Yes
Arthur	Cass	Yes
Ayr	Cass	No
Briarwood	Cass	No
Buffalo	Cass	Yes
Casselton	Cass	Yes
Davenport	Cass	Yes
Fargo	Cass	No
Frontier	Cass	No
Gardner	Cass	No
Grandin	Cass	No
Harwood	Cass	No
Horace	Cass	No
Hunter	Cass	Yes
Kindred	Cass	Yes
Leonard	Cass	No
Mapleton	Cass	Yes
North River	Cass	Yes
Oxbow	Cass	Yes
Page	Cass	Yes
Prairie Rose	Cass	No
Reiles Acres	Cass	No
Tower City	Cass	Yes
West Fargo	Cass	No
Elliot	Ransom	No
Enderlin	Ransom	Yes
Fort Ransom	Ransom	Yes
Lisbon	Ransom	Yes
Sheldon	Ransom	No
Abercrombie	Richland	No
Barney	Richland	Yes
Cayuga	Richland	No
Christine	Richland	Yes
Colfax	Richland	No
Dwight	Richland	No
Fairmount	Richland	Yes
Great Bend	Richland	Yes
Hankinson	Richland	Yes
Lidgerwood	Richland	No
Mantador	Richland	No
Mooreton	Richland	No
Wahpeton	Richland	Yes

Walcott	Richland	No	
Wyndmere	Richland	No	
Cogswell	Sargent	Yes	
Forman	Sargent	Yes	
Gwinner	Sargent	No	
Havana	Sargent	No	
Milnor	Sargent	Yes	
Rutland	Sargent	Yes	
Finley	Steele	Yes	
Норе	Steele	Yes	
Luverne	Steele	Yes	
Sharon	Steele	No	
Buxton	Traill	No	
Clifford	Traill	Yes	
Galesburg	Traill	No	
Hatton	Traill	No	
Hillsboro	Traill	No	
Mayville	Traill	Yes	
Portland	Traill	Yes	
Reynolds	Traill	No	

Appendix C: Financial Institution Survey

• Sample Survey

Financial Institution Survey

Region V

Comprehensive Economic Development Strategy

Please provide as detailed and accurate information as possible. This survey will be used as a tool to develop the Comprehensive Economic Development Strategy for the Lake Agassiz Region. The survey results will be used to assess available commercial credit in the region as well as the utilization of economic development programs.

Name of respondent: Title: Phone #: Date Completed:	
Name of Financial Institution: Address:	
2. Owner of the institution: Address:	
Service area of institution:	
4. Is your institution part of a multi-bank network? Yes No	
Is your institution active in commercial lending? Yes No If yes, how many commercial loan officers are employed?	
6. If your bank is part of a bank system, where does lending authority for commercial loan rest? Please explain:	S

a. Assets \$		
b. Deposits <u>\$</u>		
c. All Loans \$		
d. Commercial Loans \$		
8. What is your bank's lending limit? <u>\$</u>		
9. What estimated percentage of your commercial loans inclu	ides participation	by other
lenders?		
0-5% 6-25% 26-50% 51-75% 76-100%		
10. What estimated percentage of your commercial loans is fo	r business start-ui	os?
0-5% 6-25% 26-50% 51-75% 76-100%		
11. What estimated percentage of your commercial loans is fo	r business expans	sion?
0-5% 6-25% 26-50% 51-75% 76-100%		
12. What estimated percentage of your commercial loans is fo	r existing busines	s operating
lines? 0-5% 6-25% 26-50% 51-75%	76-100%	, ,
13. Does your institution offer on-line banking services?	Yes	No
automatic loan payments and on-line bill payments? 0-5% 6-25% 26-50% 51-75% 76-100		
15. Has your institution participated in commercial projects inv		
economic development programs? a. ND Community Development Block Grant	YES N	0
b. ND Development Fund		
c. Bank of North Dakota		
PACE		
Flex PACE		
Beginning Entrepreneur Loan Guarantee		
Other BND (identify):		
d. USDA Rural Development		
Business and Industry Loan Guarantee (B&I)		
Intermediary Relending Program (IRP) Rural Business Enterprise Grant (RBEG)		
Rural Economic Development Loan and Grant		
Other USDA (identify):		
· · · · · · · · · · · · · · · · · · ·		
e. SBA		
6. SBA 504		
504 7a Guarantee		
504 7a Guarantee Microloan		
504 7a Guarantee Microloan Other SBA (identify):		
504 7a Guarantee Microloan Other SBA (identify): f. Local Sales Tax Fund		
504 7a Guarantee Microloan Other SBA (identify):		

	16. What estimated percentage of your commercial loans is currently guaranteed by the SBA 7a program?		
	0-5% 6-25% 26-50% 51-75% 76-100%		
	What conditions must be present in order for your bank <u>not</u> to require an SBA or other guarantee or participation from economic development programs?		
	Has your 2009 commercial lending activity increased or decreased during the past yea n terms of: <u>Decrease</u> <u>Increase</u> <u>% Change</u>		
	a. Number of new loans		
19.	What activities does your bank participate in to receive CRA credits?		
	Please provide examples of how your institution is an advocate for local economic development:		
	Does the community benefit ever enter into a lending decision? Yes No f yes, please explain:		
22.	What is your perception of today's commercial lending environment at: a. The local level?		
	b. The regional level?		
	c. The national level?		
	Has your bank tightened its lending criteria within the past year? Yes No f yes, please explain:		

24. Is any population in your service area underserved?

If yes, specify:

Elderly Minority

Youth

Other

Please return this survey by Wednesday, July 1, 2009:

Mail: Lake Agassiz Regional Council

417 Main Ave.

Fargo, ND 58103

Fax: 701-235-6706

Email: Courtney@lakeagassiz.com

Feel free to contact us if you have any questions or concerns at 701-239-5373.

Thank you for your participation!

• Survey Respondents

Sixty-four surveys were mailed to city auditors across the region: 26 in Cass County, five in Ransom County, 15 in Richland County, six in Sargent County, four in Steele County, and eight in Traill County. Thirty-three were returned. See below for details:

Company	City	Survey
, ,	•	Response
American Federal	Fargo	No
Bank of the West	Fargo	No
Black Ridge Bank	Fargo	Yes
Bremer Bank	Fargo	Yes
Citizens State Bank of Finley	Finley	Yes
Cornerstone Bank	Fargo	No
Dakota Heritage Bank of North Dakota	Норе	No
Dakota Heritage Bank of North Dakota	Grandin	No
Dakota Heritage Bank of North Dakota	Hillsboro	No
Dakota Heritage Bank of North Dakota	Hunter	No
Dakota Heritage Bank of North Dakota	Galesburg	No
Farmers & Merchants Nat'l Bank	Hatton	No
First International Bank & Trust	West Fargo	No
First International Bank & Trust- South	Fargo	No
First National Bank	Lisbon	Yes
First National Bank	Milnor	No
First National Bank	Milnor	No
First State Bank	Buxton	No
Harwood State Bank	Harwood	Yes
Kindred State Bank	Kindred	No
Lincoln State Bank	Hankinson	Yes
Quality Bank	Page	Yes
Peoples State Bank	Fairmount	Yes
Sargent County Bank	Forman	Yes
State Bank & Trust	Fargo	No
The First & Farmers Bank	Portland	Yes
The First State Bank of North	Arthur	No
Dakota		
The Goose River Bank	Mayville	Yes
Union State Bank of Fargo	Fargo	Yes
US Bank National Association ND	Fargo	Yes
Vision Bank	Fargo	No
Wells Fargo Bank, National Association	Fargo	No
Western State Bank	West Fargo	No
Western State Bank	Fargo	No

Appendix D: Community Leadership Survey Results

1. What is your occupation?		
Answer Options	Responses	
Self-employed	25.0%	
Employee of private sector	30.0%	
business	30.0%	
Public sector employee	40.0%	
Retired	5.0%	
Unemployed	0.0%	

2. Do you hold any of the following elected community leadership positions (Choose as many as apply.)

	, ,,,,
Answer Options	Responses
Mayor	5.6%
City Council Member	11.1%
County Commissioner	11.1%
School Board Member	0.0%
Park Board Member	11.1%
Township Supervisor	0.0%
Water Resource District	0.0%
Soil Conservation District	5.6%
Other	22.2%
None	38.9%

3. Are you a member of any of the following volunteer		
community organizations?	(Choose as many as apply.)	
Local Development	45.0%	
Corporation		
Community Betterment	5.0%	
Organization		
Downtown Business	15.0%	
Association		
Local Arts Group	5.0%	
Chamber of Commerce		
Local Fire	15.0%	
Department/Ambulance		
Other	20.0%	
None	25.0%	

4. What is the current population of your commintuy (if you are a rural resident choose the community with which you most closely identify.)

Answer Options	Responses
Under 100	5.0%
101 – 250	10.0%
251 – 500	15.0%
501 – 1000	20.0%
Over 1000	25.0%

Answer Ontions Responses		
trend (over the next 20 years) in your community?		
5. What do you feel will be the long-term population		

Answer Options	Responses
Steep Decline	0.0%
Moderate Decline	25.0%
Stays about the same	25.0%
Moderate increase	50.0%
Strong Increase	0.0%

6. Please explain your rationale for your projection of the long-term population trend in your community.

No young people moving here

Due to proximity to larger population bases, the community is situated in an ideal location for commuters. Elderly population declining faster than the influx of young families

Continued job growth in the Fargo-Moorhead region will continue to draw families to the Casselton area No indication of future change

A private land owner just recently opened 21 residential lots for sale in the city limits

We have been a community that strives to stay alive and continue to bring new business and new citizens to our community.

Aging population and not a lot of families moving to town

No big changes insight

close proximity to metro area, good school, clean inviting community, low taxes and available housing People will move out into the country if they can find a place to live (farmstead or small piece of land) and can travel to work relatively easily.

We have a good location along a major transportation route, good school and medical facilities, and a downtown that is not thriving but holding its own. Numbers for school enrollment seem to by looking steady for the next five years. Of most concern at this time is Crystal Sugar lockout and how that plays out. It is currently hurting local businesses and some have already left town for other employment. Would prefer to have businesses and employers that are community minded and looking out for the greater good of our county. Jobs are not being created in our community, and the population is aging

Being close to F-M area but not in it!! Manufacturing and AG related growth

7. What do you feel will be the long-term trend (over the next 20 years) in available jobs in your community?

Answer Options	Response
Steep Decline	0.0%
Moderate Decline	20.0%
Stays about the same	55.0%
Moderate increase	25.0%
Strong Increase	0.0%

8. Please explain your rationale for your projection of available jobs in your community.

No new people moving here

Agriculture contributes to the majority of jobs, and this area should remain steady.

Currently, the large employers seem to be remaining strong or showing a slight growth. I don't see that changing in the near future or long term.

As the community grows, the need for supporting services and businesses will grow. The community is close enough to Fargo to gain a portion of general growth generated in the region.

As the community grows, the need for supporting services and businesses will grow. The community is close enough to Fargo to gain a portion of general growth generated in the region.

Based on the past 20 years experience.

Small business is struggling in our community No big changes insight

Dynamic John Deere dealership, strong farmers co-op elevator, very viable local bank

The growth of Fargo, Moorhead and West Fargo will determine job availability.

We continue to see some small business start ups and expansions to offset losses. That being said it is not resulting in overall growth. If we had job growth I believe we would have population growth and all that goes with it. It would result in a healthier community overall Job development efforts are not being focused on by local EDC

Manufacturing and AG related growth

9. How would you describe the current elected leadership in your community?

Toda of the first	-, -
Answer Options	Response
Strongly Active and	20.0%
Engaged	
Moderately Active and	30.0%
Engaged	
Satisfied with the Status	30.0%
Quo	
Moderately Disengaged	15.0%
Strongly Disengaged	5.0%

10. How would you describe the volunteer leadership in your community?

Answer Options	Response
Strongly Active and	19.0%
Engaged	
Moderately Active and	38.0%
Engaged	
Satisfied with the Status	43.0%
Quo	
Moderately Disengaged	0.0%
Strongly Disengaged	0.0%

11. What is the primary barrier to new people being elected or appointed to positions of leadership?

Answer Options	Response		
"Old Guard" won't give up reins	14.0%		
Most people aren't interested	72.0%		
Cost too much to run	0.0%		
Education or training is needed	0.0%		
Lack of confidence	0.0%		
Time commitment	14.0%		

12. What is the primary barrier to building an economically vibrant and socially inviting community?

Answer Options	Response
Lack of recreational options	10.0%
Lack of cultural opportunities	10.0%
Lack of meaningful employment	60.0%
Lack of young people	10.0%
Lack of diversity	10.0%

13. What is the primary reason people decline to volunteer to serve in civil organizations?

<u> </u>			
Answer Options	Response		
No Time	60.0%		
Too Costly	0.0%		
Groups are for older people	0.0%		
No interest	30.0%		
No one has asked	10.0%		

14. What is the greatest infrastructure demand in your community?

Answer Options	Response
Housing	55.0%
Roads/Bridges	20.0%
Flood Control	10.0%
Sewer and Water Systems	10.0%
High Speed Internet Connectivity	5.0%

15. What is the greatest challenge facing your community's long-term future?

Answer Options	Response		
Infrastructure Demands	28.6%		
Lack of Educated/Skilled Workforce	4.8%		
Leadership Development	23.8%		
Access & Cost of Health Care	4.8%		
Demographic Shift	14.3%		
Lack of Job Opportunities	23.8%		

16. Is there a pool of young people (under the age of 30) in your community who are candidates for future leadership positions?

Answer Options	Response		
Yes	60.0%		
No	40.0%		

17. What do you feel can be done to encourage and develop young leaders?

Older people encourage the young to participate Encouragement by the current leaders to participate Ask them to serve on volunteer committees to get a better feel for participating in community events and projects. Invite them to participate

Young people feel very pushed for time, raising families and putting in long hours at work.

More incentives for young leaders.

parental involvement

Not sure

Bring young people onto committees to get them exposed to community issues and how groups can work together to solve problems. Existing leaders can also play a role in mentoring and encouraging good young people to step forward to serve the community in one way or another. Problem is that sometimes a hand full of individuals are identified and then get asked to do so many things that they get burnt out.

Meet with them individually and ask them to become involved.

Encouragement from current leaders and a "program" to mentor the young leaders

18. Please identify at least three strategies that you feel could be successful in stabilizing or growing your community?

- 1. More jobs 2. Attract young workers 3. Affordable housing
- 1) Active leadership to promote growth 2) Continued marketing of community 3) Incentives for job/housing growth

Encourage home building. Encourage home improvement projects to maintain affordable housing. Working with local employers to make sure the job market stays the same or grows.

We have just recently done a housing survey, and it points to the fact that we need housing for our senior population as well as our young adult population. If we can put a senior living center in our community, it will open up homes for our young adults. We have been very blessed to bring three new core businesses to our community (vet, plumber, and three electrician/heating specialists) along with several small businesses. We want to continue this trend to encourage growth. The third commitment we need is daycare. We have a very critical need for daycare and it has been very difficult to find people interested in working in this field.

Flood Control. More Funded Activities. Economic help for new business.

housing incentives, stabilizing taxes, strong council leadership

improved infrastructure. More long term job opportunities. Stronger community interrelations. Example families interaction events.

1. Teach the importance of civic involvement in high school and encourage give students opportunities to be economy

would stabilize rural economy, Though we don't really have any control over that.

Develop job opportunities through marketing campaign to former residents and graduates. Community visual improvement (beautification) by eliminating eyesore properties, then 'give away' those lots to someone who will build new on them. Develop a 'business-development' relationship with the local university to collaborate on jobs development.

Quality of life activities need to be enhanced: recreation arts family activities

19. Please rank the follo			portan		,-
	Very	Somewhat	Neutral	Somewhat Not	Not
Micro-enterprise Assistance	10%	30%	50%	0%	10%
Economic Dev. Assistance to For- Profit Businesses	35%	45%	5%	5%	10%
Youth Centers	15%	45%	25%	5%	10%
Flood Drainage Improvements	20%	20%	35%	10%	15%
Fire Stations/Equipment	5%	35%	45%	10%	5%
Commercial/Industrial Infrastructure Development	20%	70%	10%	0%	0%
Economic Dev. Technical Assistance	40%	50%	10%	0%	0%
Water/Sewer Improvements	15%	40%	30%	10%	5%
Other Commercial/Industrial Improvement Projects	15%	55%	30%	0%	0%
Senior Centers	10%	30%	50%	10%	0%
Commercial/Industrial Building Construction/ Acquisition	16%	58%	26%	0%	0%
Child Care Centers	30%	30%	40%	0%	0%
Strategic Planning	40%	45%	15%	0%	0%
Street Improvements	15%	50%	35%	0%	0%

REFERENCES

American Community Survey 2011, US Census of Population

AREA PLAN 2009-2014, Lake Agassiz RC&D Council. Aug. 2008

Bluemle, John P. "Glacial Lake Agassiz." *Department of Mineral Resources*. 09 May 2007. Web. 28 Nov. 2011. https://www.dmr.nd.gov>.

Coon, Bangsrud, Hodur, AAE Staff Paper 12002, Department of Agribusiness and Applied Economics, North Dakota State University, March 2012.

Fargo-Moorhead Metropolitan Council of Governments, 2011 Metropolitan Profile, Annual Transportation (2010) Surveillance and Monitoring Report, October 20, 2011.

Federal Emergency Management Agency, Mitigation, http://www.fema.gov/what-mitigation

Federal Emergency Management Agency, Response & Recovery, http://www.fema.gov/response-recovery

Indiana Business Research Center, Innovation in American Regions

Job Service ND, Labor Force Information; www.ndworkforceintelligence.com

Leistritz, Larry F., Dean A. Bangsund, and Nancy M. Hodur. "Assessing the Economic Impact of Invasive Weeds: The Case of Leafy Spurge (Euphorbia Esula)." Weed Science Society of America Vol. 18 (2004): 1392-1395. Print.

Leistritz, Larry F. and Nancy M. Hodur. *Biofuels, A Major Rural Economic Development Opportunity*. North Dakota State University Extension Service. Aug. 2009.

Milbrandt, A. 2005. *A Geographic Perspective on the Current Biomass Resource Availability in the United States*. Technical Report NREL/TP-560-39181. Golden, Colo.: National Renewable Energy Laboratory.

"NASS - Data and Statistics - Quick Stats." *NASS - National Agricultural Statistics Service*. Web. 15 Nov. 2011. http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats/index.asp.

ND State Data Center, Net Migration, 1990-1999 and 2000-2009 by ND County

ND State Data Center, Population Projections, 2005-2020

ND State Data Center, Population Trends by ND County, 1870-2000

"North Dakota Wind Energy Resources | Windustry." *Community Wind — Ready to Deliver | Windustry*. Web. 15 Nov. 2011. http://windustry.org/northdakota>.

OVERALL ECONOMIC DEVELOPMENT PROGRAM 1985-86, Region 5 North Dakota: Lake Agassiz Regional Council. Oct. 1984.

Paulson, Q.F. "*Guide to North Dakota's Ground-Water Resources*." ND State Water Commission. United States Geological Survey, 1983. Web. 24 Nov. 2011. http://www.swc.nd.gov>.

"Renewable Energy Initiatives: Biomass as a Fuel Source." University of Minnesota, Morris Renewable Energy Initiatives. University of Minnesota, 06 Feb. 2009. Web. 16 Nov. 2011. http://renewables.morris.umn.edu/biomass/>.

USACE; Expert Opinion Elicitation on Impact of Increasing Flood Flows on the Fargo, ND-Moorhead, MN Flood Risk Management Project, October 19, 2009

US Census of Population, 2010

"USDA-FSA-CRP Monthly Report." *Arctic Ocean.* Web. 14 Nov. 2011. https://arcticocean.sc.egov.usda.gov/CRPReport/monthly_report.do?method=selectMonth>.

United States. Natural Resources Conservation Service. North Dakota State Office. 1997 NRI. Comp. Clarence Clayton. 1997 NRI. Web. 28 Nov. 2011.

LAKE AGASSIZ REGION, NORTH DAKOTA

Cass County ● Ransom County ● Richland County ● Sargent County ● Steele County ● Traill County



Scenic Sheyenne River Valley



Downtown Fargo, ND