

CHART 1. Cities and Towns and Population Projections

CERT'S REGION: POPULATION, HOUSEHOLDS 2000 & PROJECTIONS 2010 & 2030

COUNTY	POPULATION 2000	# HOUSE- HOLDS 2000	POP. ESTIMATE 2010	HSEHOLD ESTIMATE 2010	POP. ESTIMATE 2030	% CHANGE POP 2000-2030	HSEHOLD ESTIMATE 2030	% CHANGE HSEHOLD 2000-2030
BLUE EARTH	55,941	21,062	58,810	22,420	60,910	8.9%	24,150	14.7%
DODGE	17,731	6,420	19,860	7,460	24,450	37.9%	9,670	50.6%
FAIRBAULT	16,181	6,652	15,710	6,620	16,050	-0.8%	6,950	4.5%
FILLMORE	21,122	8,228	21,820	8,660	23,780	12.6%	9,850	19.7%
FREEBORN	32,584	13,356	33,670	13,760	35,660	9.4%	14,970	12.1%
GOODHUE	44,127	16,983	47,140	19,160	52,890	19.9%	23,050	35.7%
HOUSTON	19,718	7,633	20,780	8,560	23,060	16.9%	10,270	34.5%
LE SUEUR	25,426	9,630	27,300	10,850	30,100	18.4%	12,900	34.0%
MOWER	38,603	15,582	39,900	16,270	42,990	11.4%	18,350	17.8%
OLMSTED	124,277	47,807	140,510	56,490	170,530	37.2%	72,510	51.7%
RICE	56,665	18,888	64,540	22,610	80,010	41.2%	29,740	57.5%
STEELE	33,680	12,846	36,390	14,250	40,330	19.7%	16,690	29.9%
WABASHA	21,610	8,277	23,270	9,360	26,090	20.7%	11,160	34.8%
WASECA	19,526	7,059	20,430	7,770	21,990	12.6%	9,150	29.6%
WINONA	49,985	18,744	52,570	20,570	56,090	12.2%	23,380	24.7%
TOTAL	577,176	219,167	622,700	244,810	704,930	22.1%	292,790	33.6%

Data From:

Minnesota Household Projections 2000-2030, Minnesota State Demographic Center, December 2003

Population Projections for Minnesota Counties, Minnesota State Demographic Center, October 2002

CITIES, TOWNS	NUMBER	TOTAL POP	% POP
> 80,000	1	85,806	14.9%
> 40,000	1	44,225	7.7%
20,000 - 30,000	4	93,635	16.2%
20,000-80,000	6	223,666	38.8%
10,000 - 19,999	3	51,062	8.8%
6,000 - 9,000	2	14,652	2.5%
4,000 - 5,000	4	19,062	3.3%
3,000 - 3,999	8	27,876	4.8%
3,000-19,999	17	112,652	19.5%
2,000 - 2,999	15	36,875	6.4%
1,000 - 1,999	51	69,976	12.1%
<999	311	134,007	23.2%
1-2,999	377	240,858	41.7%
TOTAL	400	577,176	100%

CHART 2: Cities and Towns by Population and Households

CERTS: COUNTIES WITH CITIES AND TOWN BY POPULATION & SIZE

COUNTY	CITIES>8,000	POP.	# HOUSE	CITIES 2000-7999	POP.	# HOUSE	CITIES 1000-1999	POP.	# HOUSE
BLUE EARTH	MANKATO N. MANKATO	32,427 11,798	12,759 5,046	LAKE CRYSTAL	2,420	973	EAGLE LAKE	1,787	663
							LIME TOWNSHIP	1,314	511
							MANKATO TWNS	1,833	636
							MAPLETON	1,678	656
							RAPIDAN TWNS	1,061	409
							S.BEND TWNS	1,491	559
DODGE				KASSON	4,398	1,711	HAYFIELD	1,325	519
				DODGE CENTER	2,226	859	MANTORVILLE	1,054	378
							MANTOR. TWNS	1,610	531
FARIBAULT				BLUE EARTH WELLS	3,621 2,494	1,666 1,097	WINNEBAGO	1,487	705
FILLMORE				SPRING VALLEY	2,518	1,090	CHATFIELD	1,257	526
							HARMONY	1,080	500
							PRESTON	1,426	616
							RUSHFORD	1,096	761
FREEBORN	ALBERT LEA	18,356	8,133				BANCROFT TWN	1,065	404
GOODHUE	RED WING	16,116	6,867	CANNON FALLS	3,795	1,611	CANNON F. TWN	1,236	427
				PINE ISLAND	2,219	856	FLORENCE TWN.	1,450	633
				ZUMBROTA	2,789	1,191	KENYON	1,661	719
							STANTON TWNS	1,080	384
							WANAMINGO	1,007	411
HOUSTON				LA CRESCENT	4,923	2,014	HOUSTON	1,020	459
				CALEDONIA	2,965	1,286	LA CRESC TWNS	1,487	531
							SPRING GROVE	1,304	610
LE SUEUR				LE SUEUR	3,919	1,588	NEW PRAGUE	1,402	540
				LE CENTER	2,240	877	KASOTA TWNS	1,487	642
				LANESBURGH TV	2,074	637	WATERVILLE	1,833	864
				MONTGOMERY	2,794	1,137			
MOWER	AUSTIN	23,314	10,261				AUSTIN TOWNSHIP	1,396	527
							LANSING TWNS	1,292	514
OLMSTED	ROCHESTER	85,806	35,346	STEWARTVILLE	5,411	2,074	CHATFIELD	1,137	433
				BYRON	3,500	1,206	EYOTA	1,644	614
				CASCADE TWNS	3,183	1,103	HAVERRHILL TWN	1,601	543
				MARION TWNS	6,159	2,244	HIGH FOR. TWN	1,085	384
				ORONOCO TWNS	2,239	872	KALMAR TWN	1,196	431
				ROCHESTER TW	2,916	1,024	NEW HAVEN TWN	1,205	433
							SALEM TOWNSHIP	1,061	409
RICE	FARIBAULT NORTHFIELD	20,818 16,590	7,668 4,891				BRIDGEW. TWN	1,898	643
							CANNON TWNS	1,212	429
							FOREST TWNS	1,136	488
							LONSDALE	1,491	577
							SHIELDS. TWNS	1,153	583
							WARSAW TWNS	1,433	566
							WEBSTER TWNS	1,825	615
							WELLS TWNS	1,743	949
							WHEATL. TWNS	1,358	444
STEELE	OWATONNA	22,434	8,940				BLOOMING PRAIR	1,933	774
WABASHA				LAKE CITY	4,330	1,948	GREENFIELD TW	1,254	720
				PLAINVIEW	3,190	1,223			
				WABASHA	2,599	1,166			
WASECA	WASECA	8,493	3,563	JANESVILLE	2,109	848	NEW RICHLAND	1,197	503
				WOODVILLE TWN	2,273	478			
WINONA	WINONA	27,069	10,666	GOODVIEW	3,373	1,419	HOMER TWNS	1,472	571
				ST. CHARLES	3,295	1,276	LEWISTON	1,484	563
							ROLLING TWNS	1,087	461
							WILSON TWNS	1,152	446

CHART 3. Feedlots

See attached file, Chart 3.

CHART 4. Agriculture and Livestock Processors

CERTS AG AND LIVESTOCK PROCESSORS

<u>COUNTY</u>	<u>NAME OF BUSINESS</u>	<u>LOCATION</u>	<u>TYPE</u>
	BLUE EARTH DICK'S LOCKER	GOOD THUNDER	MEAT
	BLUE EARTH ADM CO	MANKATO	FAT
	BLUE EARTH HONEYMEAD PRODUCTS CO	MANKATO	FAT
	BLUE EARTH CENTRAL BI-PRODUCTS RENDERING	MANKATO	FAT
	BLUE EARTH SHARI CANDIES INC	MANKATO	Fruit & Veg
	BLUE EARTH HUBBARD PETFOOD	MANKATO	GRAIN
	BLUE EARTH BIG GAIN INC	MANKATO	GRAIN
	BLUE EARTH CO-OP FEED MILL	MANKATO	GRAIN
	BLUE EARTH FEED SERVICE CO	MANKATO	GRAIN
	BLUE EARTH HILLTOP MEAT MARKET	MANKATO	MEAT
	BLUE EARTH PIONEER SNACKS	MANKATO	MEAT
	BLUE EARTH CHIP STEAK & PROVISION CO	MANKATO	MEAT
	BLUE EARTH ADM - CRUSHING SOYBEANS	MANKATO	SOYBEANS
	BLUE EARTH CENEX - CRUSHING SOYBEANS	MANKATO	SOYBEANS
	BLUE EARTH PURINA MILLS INC	MAPLETON	GRAIN
DODGE	AL-CORN ETHANOL PLANT	CLAREMONT	CORN
DODGE	OWATONNA CANNING CO	DODGE CENTER	Fruit & Veg
DODGE	HUNTTING ELEVATOR CO	HAYFIELD	GRAIN
FARIBAULT	GREEN GIANT CO & PILLSBURY CO	BLUE EARTH	Fruit & Veg
FARIBAULT	PA PA D'S PIZZA WHOLESALE	BLUE EARTH	Fruit & Veg
FARIBAULT	CUSTOM FOOD	BLUE EARTH	GRAIN
FARIBAULT	BLUE EARTH & FROST ELEVATOR	BLUE EARTH	GRAIN
FARIBAULT	BLUE EARTH RENDERING CO	BLUE EARTH	GRAIN
FARIBAULT	KIESTER FEED & GRAIN INC	KIESTER	GRAIN
FARIBAULT	STOKELY USA INC	WELLS	Fruit & Veg
FARIBAULT	GRAIN LAND CO OP	WELLS	GRAIN
FARIBAULT	SWIFT ECKRICH INC	WELLS	MEAT
FARIBAULT	CORN PLUS ETHANOL PLANT	WINNEBAGO	CORN
FILLMORE	GRANGER FARMERS CO-OP	HARMONY	DAIRY
FILLMORE	HARMONY AGRI SVC INC	HARMONY	GRAIN
FILLMORE	PRO CORN LLC ETHANOL PLANT	PRESTON	CORN
FILLMORE	WISCONSIN DAIRIES CO-OP	PRESTON	DAIRY
FILLMORE	VALLEY CHEESE INC	SPRING VALLEY	DAIRY
FILLMORE	SPRING VALLEY FEED SPECIALISTS	SPRING VALLEY	DAIRY
FILLMORE	BUSTER'S CUSTOM PROCESSING	SPRING VALLEY	MEAT
FREEBORN	AGRA RESOURCES ETHANOL PLANT	ALBERT LEA	CORN
FREEBORN	ALBERT LEA ELEVATOR CO	ALBERT LEA	GRAIN
FREEBORN	FREEBORN FOODS CO	ALBERT LEA	GRAIN
FREEBORN	JEFF'S FEED & SEED	ALBERT LEA	GRAIN
FREEBORN	SEABOARD FARMS-MINNESOTA INC	ALBERT LEA	MEAT
FREEBORN	HUDSON FOODS INC	ALBERT LEA	MEAT
FREEBORN	ALDEN CO-OP ELEVATOR	ALDEN	GRAIN
FREEBORN	MANSFIELD MEAT MARKET & LOCKER	ALDEN	MEAT
FREEBORN	SOYDIESEL PLANT TO BE OPENED	GLENVILLE	OIL SEED
GOODHUE	MINNESOTA GRAIN PEARLING CO	CANNON FALLS	GRAIN
GOODHUE	FARMERS ELEVATOR CO	CANNON FALLS	GRAIN

GOODHUE	GOODHUE CANNING CO	KENYON	Fruit & Veg
GOODHUE	LAND O'LAKES INC	PINE ISLAND	DAIRY
GOODHUE	PINE ISLAND FARMER'S ELEVATOR	PINE ISLAND	GRAIN
GOODHUE	ADM CO - CRUSH SUNFLOWER/FLAX	RED WING	OILSEED
GOODHUE	MAPLE ISLAND INC	WANAMINGO	DAIRY
GOODHUE	WANAMINGO LOCKER SERV	WANAMINGO	MEAT
GOODHUE	KRUSMARK PROCESSING	ZUMBRO FALLS	MEAT
GOODHUE	MID-AMERICA DAIRYMEN INC	ZUMBROTA	DAIRY
HOUSTON	SNO-PAC FOODS INC	CALEDONIA	Fruit & Veg
HOUSTON	HOUSTON-MONEY CREEK CO-OP	HOUSTON	DAIRY
HOUSTON	RIDGEWAY FOODS INC	HOUSTON	DAIRY
LE SUEUR	LE CENTER MEAT MARKET	LE CENTER	MEAT
LE SUEUR	LE SUEUR CHEESE CO	LE SUEUR	DAIRY
LE SUEUR	MIDLAND SOYA	LE SUEUR	FAT
LE SUEUR	GREEN GIANT CO	LE SUEUR	Fruit & Veg
LE SUEUR	HUBBARD MILLING CO	LE SUEUR	GRAIN
LE SUEUR	HIGHCROFT CO	LE SUEUR	GRAIN
LE SUEUR	LE SUEUR FARMERS ELEVATOR	LE SUEUR	GRAIN
LE SUEUR	GREEN GIANT CO & PILLSBURY CO	MONTGOMERY	Fruit & Veg
LE SUEUR	SCHATZ BROTHERS MEAT MARKET	MONTGOMERY	MEAT
LE SUEUR	ASSOCIATED MILK PRODUCERS INC	NEW PRAGUE	DAIRY
LE SUEUR	CONAGRA INC	NEW PRAGUE	GRAIN
MOWER	C & M AUTOMOTIVE	ADAMS	GRAIN
MOWER	HUNTTING ELEVATOR CO	AUSTIN	GRAIN
MOWER	QUALITY PORK PROCESSOR	AUSTIN	MEAT
MOWER	HORMEL FOOD CORP	AUSTIN	MEAT
MOWER	LOL AG CTR	BROWNSDALE	GRAIN
MOWER	BROWNSDALE MEAT SVC INC	BROWNSDALE	MEAT
MOWER	HUNTTING ELEVATOR CO	GRAND MEADOW	GRAIN
MOWER	LE ROY FARMERS CO-OP	LE ROY	GRAIN
MOWER	HUNTTING ELEVATOR CO	LYLE	GRAIN
OLMSTED	BYRON ELEVATOR CO	BYRON	GRAIN
OLMSTED	KARK RENDERING CO	CHATFIELD	FAT
OLMSTED	ALL AMERICAN CO-OP	CHATFIELD	GRAIN
OLMSTED	HUCKSTADT MEAT PROCESSING INC	CHATFIELD	MEAT
OLMSTED	PACE DAIRY FOOD CO	ROCHESTER	DAIRY
OLMSTED	MARIGOLD FOODS INC	ROCHESTER	DAIRY
OLMSTED	ASSOCIATED MILK PRODUCERS INC	ROCHESTER	DAIRY
OLMSTED	ALL AMERICAN CO-OP	STEWARTVILLE	GRAIN
RICE	BEATRICE CHEESE INC	FARIBAULT	DAIRY
RICE	LAND O'LAKES INC	FARIBAULT	DAIRY
RICE	JEROME FOODS INC	FARIBAULT	MEAT
RICE	LONSDALE FEED MILL	LONSDALE	GRAIN
RICE	VOSEJPKA MEAT PROCESSING	LONSDALE	MEAT
RICE	MALT-O-MEAL CO	NORTHFIELD	GRAIN
RICE	CANNON VALLEY CO-OP	NORTHFIELD	GRAIN
RICE	WATERFORD MEATS & PROCESSING	NORTHFIELD	MEAT
STEELE	BIXBY FEED MILL INC	BLOOMING PRAIRIE	GRAIN
STEELE	ASSOCIATED MILK PRODUCERS INC	OWATONNA	DAIRY
STEELE	OWATONNA CANNING CO	OWATONNA	Fruit & Veg
STEELE	HARVEST STATES FARMLAND FEED	OWATONNA	GRAIN
STEELE	BENSON QUINN CO	OWATONNA	GRAIN
STEELE	CASHMAN SEED & FERTILIZER INC	OWATONNA	GRAIN

STEELE	WILDUNG ALFALFA MILL	OWATONNA	GRAIN
WABASHA	CARGILL FLOUR MILLING DIV	LAKE CITY	GRAIN
WABASHA	DUNCANS INC	LAKE CITY	GRAIN
WABASHA	FARMERS ELEVATOR CO	LAKE CITY	GRAIN
WABASHA	INDEPENDENT GRAIN & FEED CO	LAKE CITY	GRAIN
WABASHA	LAKESIDE FOODS INC	PLAINVIEW	Fruit & Veg
WABASHA	CON AGRA FLOUR MILLING CO	WABASHA	GRAIN
WASECA	SOUTHERN VALLEY CO-OP	JANESVILLE	GRAIN
WASECA	CARGILL INC	NEW RICHLAND	GRAIN
WASECA	HUNTING ELEVATOR CO	NEW RICHLAND	GRAIN
WASECA	MATAWAN GRAIN & FEED INC	WALDORF	GRAIN
WASECA	WASECA FOOD & STORAGE	WASECA	DAIRY
WASECA	KRAFT GENERAL FOODS	WASECA	Fruit & Veg
WASECA	SOUTH CENTRAL FEDERATED FEEDS	WASECA	GRAIN
WASECA	SOUTHERN VALLEY CO-OP	WASECA	GRAIN
WINONA	LEWISTON FEED & PRODUCE	LEWISTON	GRAIN
WINONA	NORTH STAR FOODS INC	ST CHARLES	MEAT
WINONA	AG SPECIALISTS	ST CHARLES	MEAT
WINONA	PRAIRIE LAND CO-OP	WINDOM	GRAIN
WINONA	ADM GROWMARK	WINONA	GRAIN
WINONA	BAY STATE MILLING CO	WINONA	GRAIN
WINONA	SECOND LOOK	WINONA	GRAIN
WINONA	WATKINS INC	WINONA	GRAIN
WINONA	LEDEBUHR MEAT PROCESSING	WINONA	MEAT

CHART 5. Soybeans and Corn Consumed in Area

CERTS 2000: CORN GROWN, CONSUMED, PROCESSED BY COUNTY

CORN

COUNTY	BU CORN PRODUCED 2002	LIVESTOCK County Level Corn Equivalents Consumed (bushels) 1	Bushels Used in Ethanol Production	Bushels Remaining
BLUE EARTH	30,099,600	7,752,430		22,347,170
DODGE	18,060,000	3,409,515	11,111,111	3,539,374
FARIBAULT	33,667,200	2,551,329	16,296,296	14,819,575
FILLMORE	24,252,600	10,251,831	14,814,814	-814,045
FREEBORN	30,249,900	6,165,588	14,074,074	10,010,238
GOODHUE	21,386,000	9,160,096		12,225,904
HOUSTON	8,316,600	4,891,049		3,425,551
LE SUEUR	14,023,800	4,446,529		9,577,271
MOWER	31,087,800	7,777,329		23,310,471
OLMSTED	16,699,600	4,754,968		11,944,632
RICE	1,243,340	10,326,939		-9,083,599
STEELE	17,064,800	5,183,763		11,881,037
WABASHA	11,939,200	5,406,662		6,532,538
WASECA	19,388,700	7,482,618		11,906,082
WINONA	12,364,800	8,886,297		3,478,503
TOTAL	289,843,940	98,446,943	56,296,295	135,100,702

1 Filling the Livestock Feed Troughs of Minnesota, Douglas G. Tiffany and Jerry Fruin, 2001

CERTS 2000: SOYBEANS GROWN, CONSUMED, PROCESSED BY COUNTY

COUNTY	BU SOY PRODUCED 2002	TONS of SOYBEANS PRODUCED 2002	LIVESTOCK County Level Soybean Equivalents Consumed (tons) 1	Tons Remaining
BLUE EARTH	8,232,000	246,960	50,331	196,629
DODGE	4,763,200	142,896	22,272	120,624
FARIBAULT	8,355,000	250,650	17,077	233,573
FILLMORE	4,936,800	148,104	62,469	85,635
FREEBORN	7,894,800	236,844	37,558	199,286
GOODHUE	4,580,000	137,400	56,148	81,252
HOUSTON	1,204,800	36,144	26,998	9,146
LE SUEUR	4,051,200	121,536	24,728	96,808
MOWER	8,729,100	261,873	44,998	216,875
OLMSTED	3,796,000	113,880	27,255	86,625
RICE	3,350,000	100,500	79,788	20,712
STEELE	4,320,000	129,600	31,357	98,243
WABASHA	1,960,000	58,800	33,269	25,531
WASECA	5,002,400	150,072	44,917	105,155
WINONA	1,425,600	42,768	54,145	-11,377
TOTAL	72,600,900	2,178,027	613,310	1,564,717

1 Filling the Livestock Feed Troughs of Minnesota, Douglas G. Tiffany and Jerry Fruin, 2001

Soybean Crushing Potential Tons:	2,700,000
Soybeans Available Tons:	1,564,717
Deficit Tons Soybeans For Crushing Facilities at Maximum Capacity	1,135,283

CHART 6. Gyles Randall Statement on Corn-Soybean Rotation Not Sustainable

COMMENTARY:

Intensive corn-soybean agriculture is not sustainable

By Gyles Randall, University of Minnesota soil scientist

9/27/01

Present-day corn and soybean production in southern Minnesota does not appear to be sustainable from economic, environmental, ecological and sociological perspectives. Let's examine these four factors:

1. Economics is a primary determinant as to whether an agricultural production system is sustainable-to the producer, the agricultural infrastructure and the surrounding community. Global competition, primarily from Argentina, Brazil, and China, will put extreme pressure on the U.S. corn and soybean market.

Visitors to Brazil say there are over 200 million acres of relatively flat land outside of the Amazon River Basin available to be cleared for crop production. This is more than the total acreage of corn and soybeans in the U.S. (about 140 million acres).

Due to low prices, federal assistance with loan deficiency payments (LDPs) has been the primary source of profit for most corn and soybean producers the last two years. Some have said that without them we would have witnessed the largest bankruptcy ever in American agriculture.

Unfortunately, LDPs have stimulated all-out field edge to field edge production, since the farmer is rewarded based on number of bushels produced. Although economically good for the producer, this government policy has come at the expense of soil and water stewardship and has created severe long-term consequences.

Coupled with global competition and taxpayers questioning government payments to produce crops they see as not essential to food in grocery stores and restaurants, the economic picture for current corn-soybean production becomes bleak.

2. Environmental factors have become more prominent in recent years when determining the sustainability of crop production systems. In my travels throughout south central and southeastern Minnesota, I've never seen as much erosion as in the last few years. We've had some intense rains, but we've also converted the landscape to a crop production system (corn and soybeans) that is extremely susceptible to soil erosion.

We must question the sustainability of the corn-soybean rotation from an environmental perspective. This is due to more soil erosion, greater and more "flash flood" runoff water compared to cropping systems containing alfalfa and grass perennials, and more loss of nitrate-nitrogen to ground and surface waters.

3. Ecological factors must be considered when evaluating sustainability. More and diverse plant and wildlife is considered highly favorable in a rural ecosystem and presents an aesthetically pleasing quality, which is gaining value in American society. But the current corn-soybean cropping system provides little opportunity for animal and plant diversity on the landscape.

CHART 6. Gyles Randall Statement on Corn-Soybean Rotation Not Sustainable (continued)

Transportation of corn and soybeans to New Orleans for overseas shipment is another ecological challenge. The judicial branch recently denied attempts by the U.S. Army Corps of Engineers to reconstruct the lock and dam system to better accommodate barge traffic for grain shipment. My guess is that corn and soybean agriculture will not win this ecological debate.

4. Sociological impacts are also seen as side effects of present-day corn and soybean agriculture. As farms get larger to support profitable corn and soybean production, we have fewer farms and farm families. Rural populations decline, student numbers in schools dwindle and church membership shrinks. Producers often bypass the local community to purchase inputs at larger regional outlets where prices are cheaper due to volume purchases.

And as more production contracts are developed between agribusiness and the farmer, the farmer will gradually assume the role of "custom operator" or "indentured servant" and lose the freedom to manage. These trends will likely continue regardless of the cropping system, but the corn-soybean rotation has speeded the process.

What does this all mean? Present-day corn and soybean production systems with little livestock in the enterprise do not appear sustainable. We will need substantial changes in federal farm policy, cropping systems and usage of crops produced on the farm to sustain a healthy environment and rural community.

Gyles Randall is a soil scientist and professor at the University of Minnesota Southern Research and Outreach Center, Waseca. He can be reached at 507-835-3620, or grandall@soils.umn.edu. This commentary was distributed by the University of Minnesota Extension Service.

CHART 6. Gyles Randall Statement on Corn-Soybean Rotation Not Sustainable (continued)



These photos graphically illustrate the effects of intensive corn-soybean farming on water quality. They were taken at a spot where the Root River drains into the Mississippi River in southeast Minnesota. The Root is recognized nationally as a premier trout stream. But in these photos, which were taken Aug. 20, 1999, by Jeff Janvrin of the Wisconsin Department of Natural Resources, the Root is so laden with eroded soil that it appears chocolate brown against the relatively blue waters of the Mississippi (which is no pristine stream itself). Parts of the Root flow through intensively-farmed corn and soybean country in southern Minnesota.

CHART 7: Energy to Raise Corn and Soybeans – SE/SC MN CERT Region

ENERGY USED TO PRODUCE CORN AND SOYBEANS IN MN AND SE MN CERTS**

	CORN	SOYBEANS	MINNESOTA	SE MN CERTS
DIESEL/ACRE/GAL	9.37	7.43		
ACRES MN	7,100,000	7,600,000		
DIESEL MN	66,527,000	56,468,000	122,995,000	
CERTS ACRES	1,799,100	1,362,400		
DIESEL CERTS	16,857,567	10,122,632		26,980,199
GAS/ACRE/GAL	1.15	0.91		
ACRES MN	7,100,000	7,600,000		
GAS MN	8,165,000	6,916,000	15,081,000	
CERTS ACRES	1,799,100	1,362,400		
GAS CERTS	2,068,965	1,239,784		3,308,749
LP/ACRE	9.58	0.75		
ACRES MN	7,100,000	7,600,000		
LP/MN	68,018,000	5,700,000	73,718,000	
CERTS ACRES	1,799,100	1,362,400		
LP CERTS	17,235,378	1,021,800		18,257,178
ELECTRICITY/ACRE	35.63	27.50		
ACRES MN	7,100,000	7,600,000		
ELECTRICITY MN	252,973,000	209,000,000	461,973,000	
CERTS ACRES	1,799,100	1,362,400		
ELECTRICITY CERTS	64,101,933	37,466,000		101,567,933
NAT GAS/ACRE*	3.945	0.199		
ACRES MN	7,100,000	7,600,000		
NAT GAS MN	28,009,500	1,512,400	29,521,900	
CERTS ACRES	1,799,100	1,362,400		
NAT GAS CERTS	7,097,450	271,118		7,368,567

****SE CERTS: Blue Earth, Faribault, Freeborn, LeSueur, Rice, Steele, Waseca, Dodge, Fillmore, Goodhue, Houston, Mower, Olmsted, Wabasha, Winona**

* - Natural Gas figures represent thousand cubic feet of natural used per acre in fertilizer for each crop type.

Figures from Doug Tiffany -- University of Minnesota - power point presentation at www.misa.umn.edu under programs, Endowed Chair, power point

CHART 8: Major Energy Users

Major Fuel Users and amount fuel used in 2001

Source: PCA Boiler and Fuel Use database

Consolidated by: Shalini Gupta, ME3 gupta@me3.org

COUNTY	CITY	NAME	NATURAL FUEL LPG/ WOOD					Annual (MWh)
			GAS	OIL	PROP	WOOD	Coal	
Million British Thermal Units Consumed in 2001								
Blue Earth	Lake Crysta	Crysteel Manufacturing Inc	4,019					4,019
Blue Earth	Mankato	ADM - Mankato	293,720	23,624			1,427,031	1,744,375
Blue Earth	Mankato	Associated Finishing Inc	22,842					22,842
Blue Earth	Mankato	CHS Oilseed Processing - Mankato	815,584	397,660				1,213,245
Blue Earth	Mankato	Crown Cork & Seal Co Inc - Mankato	29,678					29,678
Blue Earth	Mankato	Dotson Co Inc	3,290					3,290
Blue Earth	Mankato	Minnesota Elevator Inc	21					21
Blue Earth	Mankato	NSP dba Xcel Energy - Key City/ Wilmar	41,737					41,737
Blue Earth	North Mankato	Taylor Corp Campus	19,532					19,532
Dodge	Claremont	Al-Corn Clean Fuel	659,976					659,976
Dodge	Dodge Cent	McNeilus Truck & Manufacturing Inc	131,563					131,563
Faribault	Blue Earth	Blue Earth Area Schools	1,408	226				1,634
Faribault	Blue Earth	Blue Earth Light & Water	15,626	3,926				19,552
Faribault	Blue Earth	Seneca Foods Corp - Blue Earth	36,391					36,391
Faribault	Blue Earth	St Luke's Lutheran Care Center	4,647	17				4,663
Faribault	Wells	Wells Public Utilities	1,614					1,614
Faribault	Winnebago	Corn Plus	879,968					879,968
Fillmore	Chatfield	Strongwell - Chatfield Division	2,416					2,416
Fillmore	Chatfield	Tuohy Furniture Corp - Chatfield	3,793			11,802		15,595
Fillmore	Preston	Pro-Corn LLC	769,365		137			769,502
Fillmore	Spring Valle	BP Products North America -Spring Valle	31					31
Fillmore	Spring Valle	Spring Valley Utilities	2,128					2,128
Freeborn	Albert Lea	Agra Resources Coop dba EXOL	745,290					745,290
Freeborn	Albert Lea	Alliance Pipeline - Albert Lea 25-A	7,669					7,669
Freeborn	Albert Lea	ISD 241 - SW Jr High & Sibley Elementa	9,951					9,951
Freeborn	Albert Lea	Streater Inc	49,807					49,807
Goodhue	Cannon Falls	Bergquist Co - Cannon Falls	76,288					76,288
Goodhue	Kenyon	Foldcraft Co	2,087			9,185		11,271
Goodhue	Pine Island	Land O'Lakes Inc - Pine Island	202,979	32,258				235,237
Goodhue	Red Wing	ADM - Red Wing	105,576	164,659				270,235
Goodhue	Red Wing	Minnesota Correctional Facility-Red Wing	38,982					38,982
Goodhue	Red Wing	Minnesota State College - SE Technical	4,184	69				4,253
Goodhue	Red Wing	NSP dba Xcel Energy - Red Wing	29,401	48				29,449
Goodhue	Red Wing	Red Wing Solid Waste Boiler Facility	6,446					6,446
Goodhue	Red Wing	SB Foot Tanning Co	12,901	523				13,424
Goodhue	Red Wing	USG Interiors Inc - Red Wing	21,691				627,520	649,211
Goodhue	Welch	NSP dba Xcel Energy - Prairie Island		25				25
Goodhue	Zumbrota	Dairy Farmers of America Inc - Zumbrota	178,461	22,241				200,702
Houston	Spring Grove	Northern Engraving Corp	30,449		344			30,794
Le Sueur	Kasota	Unimin Minnesota Corp - Kasota Plant	115,958	186				116,144
Le Sueur	Le Sueur	DAVISCO International Inc - Le Sueur	79,876					79,876
Le Sueur	Le Sueur	Le Sueur Inc	246,042					246,042
Le Sueur	Le Sueur	Minnesota Valley Health Center	7,669		50			7,719
Le Sueur	Le Sueur	Unimin Minnesota Corp - Le Sueur	162,218	725				162,944
Le Sueur	Montgomery	Seneca Foods Corp - Montgomery	70,202					70,202
Le Sueur	New Prague	ConAgra Flour Milling Co - New Prague	5,397	165				5,562
Le Sueur	New Prague	New Prague Water - Light - Power & Bldg	1,028					1,028
Mower	Austin	Austin Utilities - 4th Ave Plant	56,530					56,530
Mower	Austin	Austin Utilities - NE Power Station	101,186				1,405,844	1,507,030
Mower	Austin	Hormel Foods Corp - Austin	306,985	364,530		2,330		673,845
Mower	Austin	Riverland Community College	34,243	226				34,469
Olmsted	Rochester	Associated Milk Producers Inc -Rocheste	119,762	108,061				227,823
Olmsted	Rochester	Crenlo Inc - Plant 2	127,359		13,532			140,891
Olmsted	Rochester	IBM - Rochester	323,316	19,160				342,476
Olmsted	Rochester	Mayo Medical Center - Rochester	1,947,875	203,229				2,151,104
Olmsted	Rochester	Olmsted Waste-to-Energy Facility	10,989	1,498				12,487
Olmsted	Rochester	Pace Dairy Foods Co	30,778					30,778
Olmsted	Rochester	Quest International	147,210					147,210
Olmsted	Rochester	Rochester Public Utilities - Silver Lake	273,962				2,289,091	2,563,053
Olmsted	Rochester	Seneca Foods Corp - Rochester	133,198					133,198

CHART 8: Major Energy Users (continued)

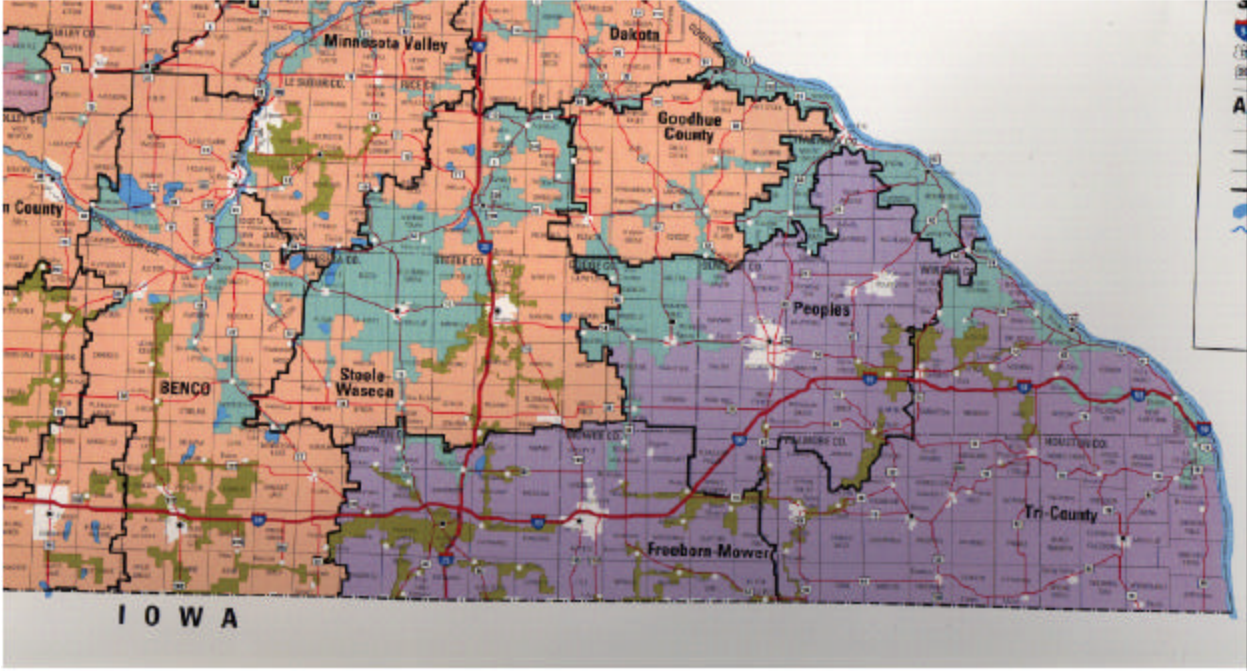
Major Fuel Users and amount fuel used in 2001

COUNTY	CITY	NAME	FUEL					Annual Electricity Generation (MWh)
			NATURAL GAS	OIL	LPG/ PROP	WOOD	Coal	
Million British Thermal Units Consumed in 2001								
Rice	Faribault	Catholic Charities Covenant Academy MF	3,505					3,505
Rice	Faribault	Crown Cork & Seal Co Inc - Faribault	70,099		2,310			72,409
Rice	Faribault	Minn Correctional Facility - Faribault	85,118	102,074				187,192
Rice	Northfield	Carleton College	149,852					149,852
Rice	Northfield	Malt-O-Meal Co - Plant 2 - Northfield	342,735					342,735
Rice	Northfield	McLane Minnesota Inc	1,480	3,162				4,642
Rice	Northfield	Northfield Acquisition Co - East & West	77,100	100				77,200
Rice	Northfield	Northfield Hospital - Rice County	13,179					13,179
Steele	Bloom Prairi	Blooming Prairie Public Utilities		1,214				1,214
Steele	Owatonna	Crown Cork & Seal Co Inc - Owatonna	109,924					109,924
Steele	Owatonna	Owatonna Public Utilities - Power Plant	122,805					122,805
Steele	Owatonna	Truth Hardware Paint Plant - Owatonna	70,829					70,829
Wabasha	Lake City	Federal-Moqul Corp Powertrain Systems	116,164		1,975			118,139
Wabasha	Lake City	Hearth & Home Technologies of Lake Cit	75,394					75,394
Wabasha	Lake City	Valley Craft Inc	11,421					11,421
Wabasha	Plainview	Lakeside Foods Inc - Plainview	101,320	15,525				116,845
Waseca	Janesville	Janesville Municipal Utilities	11,483					11,483
Waseca	Waseca	Brown Printing Co - Waseca Division	156,667		941			157,608
Winona	Winona	Badger Equipment Co	236					236
Winona	Winona	Badger Foundry Co	39,917		1,634			41,551
Winona	Winona	Bay State Milling Co	9,920					9,920
Winona	Winona	Cytec Engineered Materials Inc	87,873					87,873
Winona	Winona	Froedtert Malt - Winona	321,456					321,456
Winona	Winona	ISD 861 - Winona High School			1,401			1,401
Winona	Winona	St Mary's University	70,665	770				71,434
Winona	Winona	Ticona Celstran Inc	82					82

CHART 9: Natural Gas and Electricity Providers

County	Community Name	Electric Utility Name	Gas Utility Name
Blue Earth	Mankato	BENCO Electric	CenterPoint Energy Minnegasco
Blue Earth	Mankato	Dakota Electric Association	CenterPoint Energy Minnegasco
Blue Earth	Mankato	Xcel Energy (NSP)	CenterPoint Energy Minnegasco
Blue Earth	N. Mankato	BENCO Electric	CenterPoint Energy Minnegasco
Blue Earth	N. Mankato	Xcel Energy (NSP)	CenterPoint Energy Minnegasco
Dodge	Dodge Center	Xcel Energy (NSP)	Aquila Networks (Peoples)
Dodge	Hayfield	People's Cooperative Services	Aquila Networks (Peoples)
Dodge	Hayfield	Xcel Energy (NSP)	Aquila Networks (Peoples)
Dodge	Mantorville	People's Cooperative Services	Aquila Networks (Peoples)
Dodge	Mantorville	Xcel Energy (NSP)	Aquila Networks (Peoples)
Faribault	Blue Earth	Blue Earth Light and Water Office	CenterPoint Energy Minnegasco
Faribault	Wells	Wells Public Utilities	Aquila Networks (Peoples)
Faribault	Winnebago	Alliant Energy	CenterPoint Energy Minnegasco
Fillmore	Chatfield	Alliant Energy	Aquila Networks (Peoples)
Fillmore	Harmony	City of Harmony	Aquila Networks (Peoples)
Fillmore	Rushford	Rushford Municipal	Aquila Networks (Peoples)
Fillmore	Rushford	Tri-County Electric Cooperative	Aquila Networks (Peoples)
Fillmore	Spring Valley	Spring Valley Public Utilities Comm.	Aquila Networks (Peoples)
Freeborn	Albert Lea	Alliant Energy	Alliant Energy
Freeborn	Albert Lea	Dakota Electric Association	Alliant Energy
Freeborn	Albert Lea	Freeborn-Mower Cooperative Services	Alliant Energy
Goodhue	Cannon Falls	Dakota Electric Association	Aquila Networks (Peoples)
Goodhue	Cannon Falls	Xcel Energy (NSP)	Aquila Networks (Peoples)
Goodhue	Kenyon	Kenyon Municipal Utilities	Aquila Networks (Peoples)
Goodhue	Pine Island	Xcel Energy (NSP)	Aquila Networks (Peoples)
Goodhue	Red Wing	Xcel Energy (NSP)	Xcel Energy
Goodhue	Wanamingo	Xcel Energy (NSP)	Aquila Networks (Peoples)
Goodhue	Zumbrota	Goodhue County Cooperative Electric Association	Xcel Energy
Goodhue	Zumbrota	Xcel Energy (NSP)	Xcel Energy
Houston	Caledonia	Caledonia Mun Light & Power Dept.	Aquila Networks (Peoples)
Houston	Caledonia	Tri-County Electric Cooperative	Aquila Networks (Peoples)
Houston	Houston	Tri-County Electric Cooperative	Aquila Networks (Peoples)
Houston	La Crescent	Tri-County Electric Cooperative	Aquila Networks (Peoples)
Houston	La Crescent	Xcel Energy (NSP)	Aquila Networks (Peoples)
Houston	Spring Grove	City of Spring Grove	Aquila Networks (Peoples)
Houston	Spring Grove	Xcel Energy (NSP)	Aquila Networks (Peoples)
Le Sueur	Le Center	Alliant Energy	Alliant Energy
Le Sueur	Le Sueur	Le Sueur Municipal Utilities	CenterPoint Energy Minnegasco
Le Sueur	Montgomery	Alliant Energy	Greater Minnesota Gas, Inc
Le Sueur	Montgomery	Alliant Energy	CenterPoint Energy Minnegasco
Le Sueur	Montgomery	Alliant Energy	Alliant Energy
Le Sueur	Montgomery	Minnesota Valley Electric Cooperative	Greater Minnesota Gas, Inc
Le Sueur	Montgomery	Minnesota Valley Electric Cooperative	CenterPoint Energy Minnegasco
Le Sueur	Montgomery	Minnesota Valley Electric Cooperative	Alliant Energy
Olmsted	Byron	People's Cooperative Services	Aquila Networks (Peoples)
Olmsted	Byron	Xcel Energy (NSP)	Aquila Networks (Peoples)
Olmsted	Eyota	Alliant Energy	Aquila Networks (Peoples)
Olmsted	Eyota	People's Cooperative Services	Aquila Networks (Peoples)
Olmsted	Rochester	People's Cooperative Services	Aquila Networks (Peoples)
Olmsted	Rochester	Rochester Public Utilities	Aquila Networks (Peoples)
Olmsted	Stewartville	Alliant Energy	Aquila Networks (Peoples)
Olmsted	Stewartville	People's Cooperative Services	Aquila Networks (Peoples)
Rice	Faribault	Steele-Waseca Cooperative	Xcel Energy
Rice	Faribault	Xcel Energy (NSP)	Xcel Energy
Rice	Northfield	Xcel Energy (NSP)	Xcel Energy
Steele	Blooming Prairie	Blooming Prairie Municipal Utilities	Aquila Networks (Peoples)
Steele	Blooming Prairie	Southern Minnesota Municipal Power	Aquila Networks (Peoples)
Steele	Medford	Alliant Energy	CenterPoint Energy Minnegasco
Steele	Medford	Steele-Waseca Cooperative	CenterPoint Energy Minnegasco
Steele	Owatonna	Alliant Energy	Owatonna Pub. Utilities
Steele	Owatonna	Owatonna Public Utilities	Owatonna Pub. Utilities
Steele	Owatonna	Steele-Waseca Cooperative	Owatonna Pub. Utilities
Wabasha	Lake City	Lake City Water & Light	Xcel Energy
Wabasha	Lake City	Southern Minnesota Municipal Power	Xcel Energy
Wabasha	Lake City	Xcel Energy (NSP)	Xcel Energy
Wabasha	Plainview	Alliant Energy	Aquila Networks (Peoples)
Wabasha	Wabasha	Xcel Energy (NSP)	Xcel Energy
Waseca	Janesville	Janesville Municipal	CenterPoint Energy Minnegasco
Waseca	New Richland	Xcel Energy (NSP)	Aquila Networks (Peoples)
Waseca	Waseca	Waseca Utility	CenterPoint Energy Minnegasco
Waseca	Waseca	Xcel Energy (NSP)	CenterPoint Energy Minnegasco
Winona	Goodview	Xcel Energy (NSP)	Xcel Energy
Winona	Lewiston	Alliant Energy	Alliant Energy
Winona	Winona	Xcel Energy (NSP)	Xcel Energy

CHART 10: Co-ops, Munis and Power Providers in the 15 County SE/SC CERT Region



Legend:
Olive -- Alliant Energy
Purple -- Dairyland Power Cooperative
Turquoise -- Xcel Energy
Coral -- Great River Energy
White -- Munis and Others

CHART 11: Munis and Coops and Customers by Sector, Power Consumption

SE/SC CERTS: ELECTRICITY CONSUMED, POWER PROVIDERS, NO. CUSTOMERS 2001

*info withheld to avoid disclosure of individual company data

	NUMBER FARMS	FARM MWH	# NON- FARM RESID.	NON-FARM RESIDENT MWH	NUMBER COMM.	COMMER- CIAL MWH	NUMBER INDUST	INDUSTRIAL MWH	TOTAL CUSTOMER	TOTAL MWH
DAIRYLAND										
Freeborn Mower	5,688	103,609	0	0	57	23,557	4	24,924	5,749	152,090
Peoples	3,500	47,086	10,345	137,201	231	23,439	0	0	14,076	207,726
Tri-Co Elect	10,027	167,536	1,701	1,554	352	28,525	2	14,044	12,082	211,659
TOTAL DAIRY	19,215	318,231	12,046	138,755	640	75,521	6	38,968	31,907	571,475

GREAT RIVER										
BENCO	5,700	80,572	5,447	71,451	546	80,696	0	0	11,693	232,719
Dakota -- part	na	na	na	na	na	na	na	na	na	na
Goodhue Coop	2,284	50,967	1,824	21,491	144	2,613	6	730	4,258	75,801
Minn Valley	0	0	23,181	270,564	2,361	181,099	0	0	25,542	451,663
Steele Waseca	6,879	99,483	599	1,592	426	34,119	4	44,100	7,908	179,294
TOTAL G.RIV	14,863	231,022	31,051	365,098	3,477	298,527	10	44,830	49,401	939,477

MUNIS	# FARM	MWH	#NF RESID	MWH	# COMM	MWH	# INDUST	MWH	TOT CUST	TOT MWH
NON-SMMPA										
Blue Earth P&L	0	0	1,667	13,816	332	6,611	56	32,409	2,055	52,836
Caledonia Mun	8	87	1,297	9,568	165	3,946	67	7,800	1,537	21,401
Eitzen	0	0	121	1,181	26	477	4	336	151	1,994
Harmony	0	0	607	4,050	166	4,498	6	83	779	8,631
Janesville	0	0	937	11,665	133	4,421	0	0	1,070	16,086
Kasota	0	0	324	3,500	0	0	0	0	324	3,500
Kasson	0	0	1,878	14,636	245	11,203	0	0	2,123	25,839
Kenyon	0	0	752	5,923	103	1,594	22	7,293	877	14,810
Lake Crystal	18	180	986	8,099	175	7,566	0	0	1,179	15,845
Lanesboro	0	0	441	2,689	80	3,012	0	0	521	5,701
LeSueur	182	2,389	1,585	12,152	254	13,471	57	73,656	2,078	101,668
Mabel	0	0	384	2,389	92	2,702	0	0	476	5,091
Rushford	0	0	743	6,381	97	3,416	20	5,163	860	14,960
Spring Grove	6	226	610	3,890	136	4,724	5	5,474	757	14,314
St. Charles	0	0	1,381	10,607	173	4,778	13	9,218	1,567	24,603
Whalen	0	0	50	203	6	173	0	0	56	376
TOT NON-SMMPA	214	2,882	13,763	110,749	2,183	72,592	250	141,432	16,410	327,655

MUNIS SMMPA	# FARM	MWH	# NF RESID	MWH	# COMM	MWH	# INDUST	MWH	TOT CUST	TOT MWH
Austin	696	6,069	9,500	67,309	1,513	*	1	*	11,710	301,397
Blooming Prairie	0	0	805	6,414	188	14,978	0	0	993	21,392
Lake City	2	48	2,535	18,025	340	15,908	6	74,571	2,883	108,552
New Prague	0	0	1,754	14,043	253	25,947	31	16,221	2,038	56,211
Owatonna	0	0	9,182	72,395	868	63,334	63	209,520	10,113	345,249
Preston	5	109	658	5,019	188	*	13	*	864	12,631
Rochester	0	0	37,196	281,644	3,952	605,628	2	242,010	41,150	1,129,282
Spring Valley	0	0	1,236	8,365	189	9,234	0	0	1,425	17,599
St. Peter	0	0	3,195	23,292	397	30,284	3	23,658	3,595	77,234
Waseca	0	0	3,569	26,464	503	35,185	0	0	4,072	61,649
Wells	0	0	1,136	8,224	197	16,000	0	0	1,333	24,224
TOTAL SMMPA	703	6,226	70,766	531,194	8,588	816,498	119	565,980	80,176	2,155,420

TOTAL ALL **34,995** **558,361** **127,626** **1,145,796** **14,888** **1,263,138** **385** **791,210** **177,894** **3,994,027** **63%**

TOTAL INV OWN **2,325,707** **37%**

TOTAL **6,319,734** **100%**

2000 ELECT USE	MWH
BLUE EARTH	723,929
DODGE	148,264
FARIBAULT	225,267
FILLMORE	148,002
FREEBORN	409,980
GOODHUE	489,413
HOUSTON	146,215
LE SUEUR	270,334
MOWER	394,730
OLMSTEAD	1,372,514
RICE	588,238
STEELE	430,218
WABASHA	221,536
WASECA	224,953
WINONA	526,141
TOTAL	6,319,734

CHART 12. Power Plants Fuel Types

POWER PLANTS CERT'S REGION 2000

Utility	Type of Facility	Fuel	Capacity	Capacity	Year Inst.	County
			Summer	Winter		
			MWH	MWH		
Alliant Montgomery Gas Turbine	Gas Turbine	Oil #2	22.200	27.400	1974	LeSueur
Austin Utilities						Mower
DT Plant Unit 2	Steam	Gas/oil # 2	9.000	9.000	1935	Mower
DT Plant Unit 3	Steam	Gas/oil # 2	7.500	7.500	1946	Mower
DT Plant Unit 4	Steam	Gas/oil # 2	12.100	12.100	1955	Mower
DT Plant Unit 5	Gas Turbine	Gas/oil # 2	5.000	5.000	1961	Mower
Northeast Plant	Steam	Coal/gas	31.500	31.500	1971	Mower
Blue Earth Light & Power						Faribault
Unit 1	Int Combustion	Oil #2/Gas	1.500	1.500	1960	Faribault
Unit 3	Int Combustion	Oil #2	1.600	1.600	1993	Faribault
Unit 4	Int Combustion	Oil #2	1.600	1.600	1993	Faribault
Unit 5	Int Combustion	Oil #2	1.600	1.600	1993	Faribault
Unit 6	Int Combustion	Oil #2	1.800	1.800	1995	Faribault
Janesville Municipal Utilities						Waseca
Unit 1	Int Combustion	Oil #2/Gas	1.300	1.365	1972	Waseca
Unit 2	Int Combustion	Oil #2/Gas	1.100	1.100	1964	Waseca
Unit 3	Int Combustion	Oil #2/Gas	0.675	0.675	1955	Waseca
Unit 4	Int Combustion	Oil #2	1.825	1.825	1998	Waseca
Kenyon Municipal Utility						Goodhue
Unit 5	Int Combustion	Oil #2	1.825	1.825	1997	Goodhue
Unit 6	Int Combustion	Oil #2	1.825	1.825	1997	Goodhue
Unit 7	Int Combustion	Oil #2	1.825	1.825	1997	Goodhue
Lake Crystal Municipal Utility						Blue Earth
Unit 1	Int Combustion	Gas/oil # 2	0.700	0.700	1952	Blue Earth
Unit 3	Int Combustion	Gas/oil # 2	2.100	2.100	1971	Blue Earth
Unit 4	Int Combustion	Gas/oil # 2	1.300	1.300	1955	Blue Earth
Unit 5	Int Combustion	Oil #2	1.800	1.800	1999	Blue Earth
Lanesboro Public Utilities						Fillmore
Power Plant Diesel Unit 2	Int Combustion	Diesel	1.000	1.000	1968	Fillmore
Hydroelectric Plant	Hydro	Water	0.230	0.230	1923	Fillmore
Rochester Public Utilities						Olmsted
Cascade Creek Unit 1	Gas Turbine	Oil #2	28.000	40.000	1974	Olmsted
Lake Zumbro Hydroelectric						Wabasha
Unit 1	Hvdro	Water	1.500	1.000	1984	Wabasha
Unit 2	Hydro	Water	1.500	1.000	1984	Wabasha
Silver Lake Steam Unit 1	Steam	Coal/gas	9.000	9.000	1949	Olmsted
Unit 2	Steam	Coal/gas	14.000	14.000	1953	Olmsted
Unit 3	Steam	Coal/gas	23.000	23.000	1962	Olmsted
Unit 4	Steam	Coal/gas	58.000	58.000	1969	Olmsted
Southern MN Mun Power Agency						Steele
Blooming Prairie Plant						Steele
Unit 1	Int Combustion	Oil #2/Gas	1.500	1.500	1957	Steele
Unit 2	Int Combustion	Oil #2/Gas	1.300	1.300	1975	Steele
Unit 3	Int Combustion	Oil #2/Gas	0.400	0.400	1975	Steele
New Prague Power Plant						LeSueur
Unit 2	Int Combustion	Gas/oil # 2	4.900	4.900	1975	LeSueur
Unit 3	Int Combustion	Gas/oil # 2	2.600	2.600	1963	LeSueur
Unit 4	Int Combustion	Gas/oil # 2	3.800	3.800	1967	LeSueur
Unit 6	Int Combustion	Gas/oil # 2	6.400	6.400	1981	LeSueur
Owatonna Downtown Unit 5	Steam	Gas			1957	Steele
Unit 6	Steam	Gas	21.200	21.200	1969	Steele
Owatonna West Sub Unit 7	Gas Turbine	Gas	14.600	19.400	1982	Steele
Preston Municipal Plant						Fillmore
Unit 4	Int Combustion	Oil #2/Gas	0.700	0.700	1949	Fillmore
Unit 5	Int Combustion	Oil #2/Gas	1.100	1.100	1954	Fillmore
Unit 6	Int Combustion	Oil #2/Gas	2.100	2.100	1974	Fillmore
Sorina Valley Plant Unit 1	Int Combustion	Gas/oil # 2	0.900	0.900	1952	Fillmore
Unit 2	Int Combustion	Gas/oil # 2	0.900	0.900	1952	Fillmore
Unit 3	Int Combustion	Gas/oil # 2	2.000	2.000	1960	Fillmore
Steele Waseca Coop Electric						Steele
Unit 1	Wind	Wind	0.004	0.004	1984	Steele
Unit 2	Wind	Wind	0.018	0.018	1984	Steele
Unit 3	Wind	Wind	0.025	0.025	1996	Steele
Unit 4	Wind	Wind	0.035	0.035	1997	Steele
Wells Public Utilities Unit 1	Int Combustion	Oil #2/Gas	1.400	1.400	1953	Faribault
Unit 2	Int Combustion	Oil #2/Gas	1.500	1.500	1957	Faribault
Unit 3	Int Combustion	Oil #2/Gas	1.000	1.000	1950	Faribault
Unit 4	Int Combustion	Oil #2/Gas	2.300	2.300	1966	Faribault
Unit 5	Int Combustion	Oil #2/Gas	2.200	2.200	1975	Faribault
Xcel Energy						
Key City Gas Turbine Unit 1	Gas Turbine	Gas/oil # 2	15.500	19.500	1969	Blue Earth
Unit 2	Gas Turbine	Gas/oil # 2	16.200	19.500	1969	Blue Earth
Unit 3	Gas Turbine	Gas/oil # 2	16.100	19.500	1969	Blue Earth
Unit 4	Gas Turbine	Gas/oil # 2	16.800	19.500	1969	Blue Earth
Prairie Island Nuclear Unit 1	Nuclear	Uranium	525.000	546.000	1973	Goodhue
Unit 2	Nuclear	Uranium	524.000	545.000	1974	Goodhue
Red Wing Steam Unit 1	Steam	RDF/Gas	10.800	11.600	1949	Goodhue
Unit 2	Steam	RDF/Gas	10.500	11.300	1949	Goodhue
West Faribault Jet Engine						Rice
Unit 2	Gas Turbine	Gas	16.600	0.000	1965	Rice
Unit 3	Gas Turbine	Gas	13.800	0.000	1965	Rice
Wilmarth Steam Unit 1	Steam	RDF/Gas	10.100	10.600	1948	Blue Earth
Unit 2	Steam	RDF/Gas	10.800	11.400	1951	Blue Earth
			1,506.987	1,555.752		
Great River Pleasant Dexter	Combustion	Nat Gas	420			Mower

Source:
Department of Commerce. The Minnesota Utility Data Book.
June 2002, pages 51-74

CHART 13. Renewable Energy Projects

RENEWABLE ENERGY PROJECTS IN OUR CERTS AREA

Renewable Energy Operating Facilities by Technology in the 15 County CERTS AREA: Blue Earth, Dodge, Fairbault, Fillmore, Freeborn, Goodhue, Le Sueur, Mower, Olmsted, Rice, Steele, Wabasha, Waseca, Winona 6/2004

Technology	Location	Owner	Fuel Type	Plant Name	Capacity (kW)
Biomass	ROCHESTER	OLMSTEAD COUNTY PUBLIC WORKS	Municipal Solid Waste (Incl Industrial, Medical)	OLMSTEAD COUNTY W-T-E-FACILITY	4,200.0
Biomass	RED WING	NORTHERN STATES POWER CO	Municipal Solid Waste (Incl Industrial, Medical)	RED WING	22,770.0
Biomass	MANKATO	NORTHERN STATES POWER CO	Municipal Solid Waste (Incl Industrial, Medical)	WILLMARTH	24,750.0
Hydro	Rochester	ROCHESTER PUBLIC UTILS DEPT	Water	LAKE ZUMBRO HYDRO	2,680.0
Hydro	LANESBORO	LANESBORO PUBLIC UTILITY	Water	LANESBORO	240.0
Hydro	MANKATO	RAPIDAN REDEVELOPMENT LTD.	Water	RAPIDAN	3,400.0
Photovoltaic	Northfield	-- Left Empty --	Solar	Ciernia House	2.5
Photovoltaic	Red Wing	Util/Homeowner	Solar	Red Wing Residential	2.0
Photovoltaic	LaCrescent	Stankevitz, Alan	Solar	Residential	4.2
Wind	Dodge Center	-- Left Empty --	Wind	-- Left Empty --	9,000.0
Wind	ZUMBROTA	BACH, JOHN	Wind	BACH, JOHN	10.0
Wind	NORTHFIELD	BRIEBELL, LLOYD	Wind	BRIEBEL, LLOYD	10.0
Wind	WASECA	JONES, DOUG	Wind	DOUG JONES	10.0
Wind	MABLE	SWENSON, GARRY	Wind	GARRY SWENSON	38.0
Wind		-- Left Empty --	Wind	Garwin McNeilus Windfarm	1,800.0
Wind	FAIRBAULT	WUNDERLICH, GARY	Wind	GARY WUNDERLICH	35.0
Wind	SPRING VALLEY	GUNDERSON, DENNIS	Wind	GUNDERSON, DENNIS	10.0
Wind	BYRON	HARRISON	Wind	HARRISON	10.0
Wind	MANKATO	TACHNEY, JAMES	Wind	JAMES TACHNEY	20.0
Wind	ZUMBROTA	OLSON, LARRY	Wind	LARRY OLSON	10.0
Wind	PRESTON	MAUST, ROBERT	Wind	MAUST, ROBERT	10.0
Wind	LONSDALE	KNAPPER, PAUL	Wind	PAUL KNAPPER	17.5
Wind	BLOOMING PRARIRE	VOGT, PETER	Wind	PETER VOGT	35.0
Wind	DODGE CENTER	NASH, RANDY	Wind	RANDY NASH	25.0

Wind	RED WING	RED WING ENERGY CENTER	Wind	RED WING HI 61 @ 19	2.0
Wind	FRONTENAC	HEDLIN, ROBERT	Wind	ROBERT HEDLIN	10.0
Wind	PINE ISLAND	SANFORD, DON	Wind	SANFORD, DON	10.0
Wind	Northfield	-- Left Empty --	Wind	Scotia Wind Farm	20.0
Wind	DUNDAS	SHERMAN, LLOYD	Wind	SHERMAN, LLOYD	18.0
Wind	ROCHESTER	NORTHERN ALTERNATIVE ENERGY	Wind	SMMPA TURBINE	900.0
Wind	MONTGOMERY	STANGLER, WILLIAM	Wind	STANGLER, WILLIAM	10.0
Wind	LAKE CITY	SCHWEN, STEVE	Wind	STEVE SCHWEN	10.0
Geothermal	Grand Meadow	Grand Meadow School	Geothermal	-	-
Geothermal	Owatonna	Steele County Jail	Geothermal	-	-

Renewable Energy Projects (continued)

Municipal Wastewater Plants with Anaerobic Digestion of Biosolids

- Rochester Water Reclamation, Rochester – also produces electricity (400 kW and 1000 kW turbines)
- Austin Waste Water Treatment Facility, Austin
- Albert Lea Wastewater Treatment, Albert Lea
- Blue Earth Waste Water Treatment Facility, Blue Earth
- Mankato Wastewater Treatment, Mankato
- Faribault Wastewater Treatment, Faribault
- Red Wing Municipal Wastewater, Red Wing
- Pine Island Facility, Pine Island
- New Richland Facility, New Richland
- Harmony Facility, Harmony
- Hokah Facility, Hokah
- Owatonna Wastewater Treatment, Owatonna – also produces electricity

Biofuels:

Ethanol Plant	Preston	30-40 million gal/yr
Ethanol Plant	Albert Lea	30-40 million gal/yr
Ethanol Plant	Winnebago	30-40 million gal/yr
Ethanol Plant	Claremont	15-30 million gal/yr

CHART 14: Transmission Line Map



CHART 15. Substations

SUBSTATIONS BY COUNTY IN SE/SC CERT AREA

Map Electric Transmission Lines and Substations 60 kV or Larger - www.lmic.state.mn.us

GOODHUE (20)	FILLMORE (14)	BLUE EARTH (21)	FREEBORN (11)	RICE (16)	LE SUEUR (9)	OLMSTED (14)
Prairie Island	Rushford (2)	Mn Lake	Corning	Veseli	New Prague	Byron (2)
Burnsville	Riceford	Danville	Freeborn	Circle Lake	Other Sub (2)	Maple Leaf
Spring Creek	Peterson	Mapleton	Alden	Northfield	Montgomery	Other (4)
Red Wing	Henrytown	Sterling Center	Mansfield	Dundas	St. Thomas	Willow Creek
Frontenac	Canton	Willow Creek	Twin Lakes	Valley Grove	Lake Emily	Bamber Valley
Belvidere Mills	Dsub (2)	St. Clair	Glenville	Faribault (2)	Cleveland	Silver Lake
Goodhue	Granger	Decoria	Riceland	French Lake	Elysian	Crosstown
Wells Creek	Fountain	Garden City	Lerdal	Fair Park	Waterville	Northern Hills
Zumbrota	Spring Valley	Rapidan	Hayward	W. Faribault		IBM
Lena	Cherry Grove	Century	Other Sub	S. Faribault		Zumbro River
Pine Island	Alliant Sub	Pohl		Nerstrand		
Cherry Grove	Other Sub	Butternut		Walcott		WINONA (9)
Kenyon		Sibley Park		Warsaw		Winona
Ner/Kenyon		Eastwood		Morristown		East Winona
Hader		Eagle Lake		Other Sub		Goodview
S. Cannon Falls		Johnson				Altura
Cannon Falls Dist		Willmarth				Stockton
Cannon Falls Tran		Dome Pipeline				St. Charles
Byllesby		Butternut				Lewisiton
Vasa		Jamestown				Wilson
		Other Sub				Witoka
HOUSTON (8)	MOWER (7)	FARIBAULT (6)	WASECA (6)	WABASHA (6)	STEELE (8)	DODGE (4)
La Crescent	Taopi	Clark	Other Sub	Peoples	Merton	Kasson (2)
DSUB	Adams	Easton	Meriden	Wabaco	Owatonna	Claremont
Houston	Rose Creek	Blue Earth	Loon Lake	Zumbro Falls	W. Owatonna (2)	Other Sub
Brownsville	London	Bricelyn	Waseca Sub	Mazeppa	Pratt	
Caledonia Mun	Sargeant	Winnebago	Matawan	Lake City	River Point	
Caledonia Mun	Brownsdale	Other Sub	St. Olaf Lake	Wabasha	Bixby	
Caledonia Mun	Austin NE SUB				Blooming Prairie	
Spring Grove						

CHART 16. Conservation Chart for Houses

The Advantages of Energy Conservation

Rich Huelskamp

	Based on 2000 sq.ft. Annual Mbtu	Approx. Btu/Sqft	Peak Furnace Input Btu/hr	Energy costs per Mbtu			
				\$20	\$15	\$10	\$5
Older home				Energy costs per year			
<R11 walls, 7 ACH, <R20 ceilings, <75% eff. furnace	120	70,000	140,000	\$2,400	\$1,800	\$1,200	\$600
R11 walls, 3 ACH, R35 ceilings, <80% eff. Furnace	100	60,000	120,000	\$2,000	\$1,500	\$1,000	\$500
Newer home							
R19 wall, 1.5 ACH, R40 ceiling, 80% eff. Furnace	70	50,000	100,000	\$1,400	\$1,050	\$700	\$350
Energy Star home							
R 25 walls, <1.0 ACH, >R40 ceilings, >85% eff. Furnace <10% window area	50	30,000	80,000	\$1,000	\$750	\$500	\$250
Solar home							
R25 walls, <.5 ACH, R50 ceilings, >90% eff. Furnace >10% window area	40	20,000	60,000	\$800	\$600	\$400	\$200
>R25 walls, <.3 ACH, >R50 ceilings, >95% eff. Furnace >10% window area	30	15,000	40,000	\$600	\$450	\$300	\$150

CHART 17: Small Wind Potential – Mike Michaud

	Annual MW-hrs Produced	Total MW-hrs Consumed	% From Wind
Blue Earth	191112	723929	26
Dodge	108950	148264	73
Faribault	134400	225267	60
Fillmore	192072	148002	130
Freeborn	148992	409980	36
Goodhue	195202	489413	40
Houston	91242	146215	62
Le Sueur	140059	270334	52
Mower	150693	394730	38
Olmsted	211173	1372514	15
Rice	136925	588238	23
Steele	105595	430218	25
Wabasha	114788	221536	52
Waseca	85711	224953	38
Winona	145737	526141	28

CHART 18. Updates ILSR Biomass charts, Ethanol from Corn Stover

See attached file, Chart 18.

CHART 19. Biomass Estimates – Oak Ridge National Laboratory

*County Level Estimates of Biomass Resource Curves, April 2003
Oak Ridge National Laboratory, Marie Walsh 2003*

Note: Data suitable for pre-feasibility, screening studies for individual firms, but not for developing a business plan. Data suitable for economic and policy analysis at a regional/national level. General methodology used is the same as is described in the Biomass Feedstock Availability Data.

TOTAL Energy Crop Quantities (dry tons) at Selected Prices County Data

County	<\$12.50/dt	<\$15.00/dt	<\$20.00/dt	<\$25.00/dt	<\$30.00/dt	<\$35.00/dt	<\$40.00/dt	<\$45.00/dt	<\$50.00/dt
Blue Earth	0	0	0	0	6060	6060	6060	6060	6060
Dodge	0	0	0	0	0	36372	36372	38930	38930
Faribault	0	0	0	0	6060	6060	6060	6060	6060
Fillmore	0	0	0	0	0	36372	36372	38930	38930
Freeborn	0	0	0	0	6060	6060	6060	6060	6060
Goodhue	0	0	0	0	0	36372	36372	38930	38930
Houston	0	0	0	0	0	36372	36372	38930	38930
Le Sueur	0	0	0	0	6060	6060	6060	6060	6060
Mower	0	0	0	0	0	36372	36372	38930	38930
Olmsted	0	0	0	0	0	36372	36372	38930	38930
Rice	0	0	0	0	6060	6060	6060	6060	6060
Steele	0	0	0	0	6060	6060	6060	6060	6060
Wabasha	0	0	0	0	0	36372	36372	38930	38930
Waseca	0	0	0	0	6060	6060	6060	6060	6060
Winona	0	0	0	0	0	36372	36372	38930	38930
	0	0	0	0	42423	333399	333399	353860	353860

TOTAL Forest Residue Quantities (dry tons) at Selected Prices County Data

County	<\$12.50/dt	<\$15.00/dt	<\$20.00/dt	<\$25.00/dt	<\$30.00/dt	<\$35.00/dt	<\$40.00/dt	<\$45.00/dt	<\$50.00/dt
Blue Earth	2	2	2	234	1021	1465	1700	1780	1785
Dodge	1	1	1	135	591	848	984	1031	1033
Faribault	2	2	2	190	833	1195	1387	1452	1456
Fillmore	33	33	37	3896	17040	24444	28358	29703	29774
Freeborn	0	0	0	25	108	154	179	187	188
Goodhue	22	22	25	2612	11423	16386	19010	19911	19959
Houston	69	69	78	8277	36203	51934	60250	63107	63258
Le Sueur	2	2	2	240	1048	1504	1744	1827	1832
Mower	1	1	1	68	296	424	492	515	517
Olmsted	9	9	10	1112	4865	6978	8096	8480	8500
Rice	11	11	12	1257	5497	7887	9147	9580	9603
Steele	0	0	0	12	54	77	89	94	94
Wabasha	31	31	35	3684	16118	23149	26819	28075	28148
Waseca	0	0	1	55	242	347	403	422	423
Winona	41	41	49	5055	22121	31802	36800	38504	38610
	224	224	255	26851	117458	168595	195459	204667	205180

CHART 19. Biomass Estimates – Oak Ridge National Laboratory (continued)

TOTAL Mill Residue Quantities (dry tons) at Selected Prices County Data

County	<\$12.50/dt	<\$15.00/dt	<\$20.00/dt	<\$25.00/dt	<\$30.00/dt	<\$35.00/dt	<\$40.00/dt	<\$45.00/dt	<\$50.00/dt
Blue Earth	0	0	0	0	0	0	0	0	0
Dodge	0	0	0	0	0	0	0	0	0
Faribault	0	0	0	0	0	0	0	0	0
Fillmore	0	655	1242	3695	5872	6552	7386	8325	8678
Freeborn	0	0	0	0	0	0	0	0	0
Goodhue	0	252	448	1406	2440	2695	3005	3336	3471
Houston	0	1209	2382	6448	10803	12014	13512	15284	15884
Le Sueur	0	0	0	0	0	0	0	0	0
Mower	0	0	0	0	0	0	0	0	0
Olmsted	0	0	0	0	0	0	0	0	0
Rice	0	0	0	0	0	0	0	0	0
Steele	0	0	0	0	0	0	0	0	0
Wabasha	0	201	397	935	1969	2150	2375	2653	2736
Waseca	0	0	0	0	0	0	0	0	0
Winona	0	0	0	0	0	0	0	0	0
	0	2318	4469	12484	21085	23412	26278	29598	30768

TOTAL Urban Wood Waste (dry tons) at Selected Prices County Data

County	\$12.50/dt	\$15.00/dt	\$20.00/dt	\$25.00/dt	\$30.00/dt	\$35.00/dt	\$40.00/dt	\$45.00/dt	\$50.00/dt
Blue Earth	1037	2075	10373	13831	17289	17289	17289	17289	17289
Dodge	335	670	3350	4466	5583	5583	5583	5583	5583
Faribault	313	626	3128	4171	5214	5214	5214	5214	5214
Fillmore	398	797	3983	5311	6639	6639	6639	6639	6639
Freeborn	607	1213	6066	8088	10110	10110	10110	10110	10110
Goodhue	835	1670	8350	11134	13917	13917	13917	13917	13917
Houston	375	751	3753	5003	6254	6254	6254	6254	6254
Le Sueur	490	981	4903	6537	8172	8172	8172	8172	8172
Mower	715	1431	7154	9538	11923	11923	11923	11923	11923
Olmsted	2293	4586	22928	30571	38214	38214	38214	38214	38214
Rice	1059	2118	10588	14117	17646	17646	17646	17646	17646
Steele	617	1235	6173	8231	10289	10289	10289	10289	10289
Wabasha	407	814	4070	5427	6784	6784	6784	6784	6784
Waseca	357	715	3574	4765	5956	5956	5956	5956	5956
Winona	920	1840	9201	12268	15335	15335	15335	15335	15335
	10759	21519	107594	143459	179324	179324	179324	179324	179324

TOTAL Agricultural Residue Quantities (dry tons) at Selected Prices County Data

County	\$12.50/dt	\$15.00/dt	\$20.00/dt	\$25.00/dt	\$30.00/dt	\$35.00/dt	\$40.00/dt	\$45.00/dt	\$50.00/dt
Blue Earth	0	0	0	256927	307741	307741	307741	307741	307741
Dodge	0	0	0	121333	183090	183090	183090	183090	183090
Faribault	0	0	0	285001	349364	349364	349364	349364	349364
Fillmore	0	0	0	160130	160130	188486	188486	188486	188486
Freeborn	0	0	0	229476	292567	292567	292567	292567	292567
Goodhue	0	0	0	140001	193340	193340	193340	193340	193340
Houston	0	0	0	32529	41223	41223	41223	41223	41223
Le Sueur	0	0	0	100497	148826	148826	148826	148826	148826
Mower	0	0	0	207595	300932	300932	300932	300932	300932
Olmsted	0	0	0	172166	172166	172166	172166	172166	172166
Rice	0	0	0	111625	132989	132989	132989	132989	132989
Steele	0	0	0	122349	180102	180102	180102	180102	180102
Wabasha	0	0	0	87198	113778	113778	113778	113778	113778
Waseca	0	0	0	169134	199757	199757	199757	199757	199757
Winona	0	0	0	76561	76561	76561	76561	76561	76561
	0	0	0	2272521	2852566	2880921	2880921	2880921	2880921

CHART 20. Forest Products Industries

Sawmill & Other	Primary Wood Producers SE/SC MN				
2002 Minnesota Primary Forest Products, DNR, August 2002					
Blue Earth	Janesville	Custom Woodworks	Sawmill & Dry Kiln	fuel products	2.0 MBF Dehum
Blue Earth	North Mankato	Kerry Koestler	Shaving Mill	shavings	
Fillmore	Chatfield	Tuohy Furniture Corp	Dry Kiln Facility		Steam 150.0 MBF
Fillmore	Lanesboro	Clair Hartlevig	Sawmill/planer/shavings	shavings	
Fillmore	Peterson	Lynn Mattson	Sawmill & Other PP	saw dust	
Fillmore	Preston	Root River Hardwood	Sawmill & Other PP	fuel wood	
Fillmore	Preston	Scotland Sawmill	Sawmill & Other PP	fuel wood/shavings	
Fillmore	Rushford	Ellefson Sawmill	Sawmill & Other PP		
Freeborn	Alden	Richard Babcock	Sawmill & Other PP	fuel products	
Freeborn	Glenville	Dennis Baseman	Sawmill & Other PP		
Freeborn	Oakland	Len's Wood Prod.	Sawmill & Dry Kiln		Solar 0.0 MBF
Goodhue	Cannon Falls	Johnson Logging Inc	Sawmill & Chipper	fuelwood, sawdust	
Goodhue	Cannon Falls	Northern Hardsoods Inc	Dry Kiln Facility		Dehum 600.0 MBF
Goodhue	Goodhue	Mark Bode	Sawmill & Other PP		
Goodhue	Red Wing	Hi Park Hardwoods	Dry Kiln Facility		Steam 0.5 MBF
Goodhue	Wanamingo	Robert Benson	Dry Kiln Facility		Dehum 1.0 MBF
Goodhue	Welch	Jurgen Nemcek	Sawmill & Dry Kiln		Dehum 2.0 MBF
Houston	Caledonia	Staggemeyer Stave Co	Sawmill & Chipper		
Houston	Hokah	Tri State Forest Prod	Sawmill & Chipper	chips	
Houston	Houston	Crystal Val Hardwood	Sawmill/DryKiln/Chipper	sawdust/shavings	Dehum 3.0 MBF
Mower	Brownsdale	Phil Hatten	Sawmill & Dry Kiln		Dehum 1.0 MBF
Mower	Waltham	Ben Christians	Sawmill & Other PP		
Olmsted	Byron	Mike Logan	Sawmill & Other PP		
Olmsted	Byron	Nepstad Sawmill	Sawmill & Dry Kiln	fuel prod/shavings	Dehum 3.0 MBF
Olmsted	Elgin	Edgewood Lumber	Sawmill & Dry Kiln		Dehum 3.0 MBF
Olmsted	Oronoco	Shady Haven Tree Farm	Sawmill & Dry Kiln	shavings	Dehum 2.0 MBF
Olmsted	Rochester	Hathaway Tree Service	Whole Tree Chippers		
Olmsted	Stewartville	John Payne	Sawmill & Other PP		
Rice	Kilkenny	Roger Madden	Sawmill & Other PP		
Rice	Webster	Wilmot's Woodworking	Sawmill & Other PP		
Steele	Blooming Prairie	Gary Carlson	Sawmill & Other PP		
Steele	Ellendale	Richards Wood Prod.	Sawmill & Other PP		
Steele	Medford	Svenby's Milling	Sawmill & Dry Kiln		Dehum 6.0 MBF
Steele	Owatonna	William Pieper	Sawmill & Other PP		
Wabasha	Kellog	Axley Brothers Inc	Sawmill & Other PP	fuelwood	
Wabasha	Kellog	G & G Logging	Sawmill & Other PP	fuel prod/sawdust	
Wabasha	Lake City	Richard Schuman	Sawmill & Other PP		
Wabasha	Millville	Village Mill	Sawmill - posts, etc		
Wabasha	Plainview	Jeff Kolb	Sawmill & Other PP		
Wabasha	Wabasha	Village Mill	Sawmill & Other PP		
Wabasha	Zumbro Falls	Dorance Gerken	Sawmill & Other PP		
Winona	St. Charles	Pete Jilk	Sawmill & Other PP	fuel prod/shavings	
Winona	Utica	Claude Patzner	Sawmill & Other PP		

CHART 21. Livestock

CERT'S LIVESTOCK INFORMATION BY COUNTY AND REGION 2002, 2003, 2004

COUNTY	FEEDLOT 2002	DAIRIES 2004	ALL HOGS 2003	ALL CATTLE 2003	BEEF COWS 2003	MILK COWS 2003	OTHER CATTLE 2003	SHEEP & LAMBS 2003	TURKEY 2002	CHICKENS 2002
BLUE EARTH	487	22	416,000	14,000	1,400	1,200	11,400	2,000	141	137
DODGE	448	49	125,000	23,000	1,900	6,300	14,800	500	57,760	543,700
FARIBAULT	522	12	203,000	12,500	1,100	2,500	8,900	800	17,259	17,231
FILLMORE	1,468	172	122,000	77,000	18,100	12,600	46,300	2,400	627,272	20,754
FREEBORN	284	24	240,000	15,500	2,200	1,500	11,800	1,300	40,552	40,552
GOODHUE	1,028	196	102,000	68,000	6,500	21,000	40,500	2,800	223,151	12,235
HOUSTON	540	122	24,000	58,500	10,000	9,600	38,900	1,000	2,847	598
LE SUEUR	322	42	78,000	18,000	2,200	3,700	12,100	1,400	99,484	28,878
MOWER	811	58	225,000	25,500	3,400	5,100	17,000	1,300	156,000	27,970
OLMSTED	631	126	46,000	50,500	9,800	8,900	31,800	1,400	503,204	502,150
RICE	490	121	97,000	28,000	2,400	8,600	17,000	1,000	485,000	1,326,000
STEELE	579	77	100,000	20,000	1,300	4,700	14,000	800	403,823	96,000
WABASHA	667	195	22,000	62,500	8,000	17,200	37,300	1,100	249,315	248,199
WASECA	320	30	180,000	14,000	1,400	2,600	10,000	1,600	217,327	1,663
WINONA	757	248	41,000	85,000	7,800	25,500	51,700	2,200	275,823	7,549
TOTAL	9,354	1,494	2,021,000	572,000	77,500	131,000	363,500	21,600	3,358,958	2,873,616
	PCA	DEPT AG	DEPT AG	DEPT AG	DEPT AG	DEPT AG	DEPT AG	DEPT AG	PCA	PCA

Minnesota Ag Statistics: www.nass.usda.gov/mn

All Cattle, Cattle on Feed, and All Breeding Sheep & Lambs January I Inventory by County and District, Minnesota, 2003-04

Hogs and Pigs...by County and District, Minnesot, 2002-2003

Dairy: Farm Numbers by County and District, Minnesota, January 2004

CHART 22. WWTP, Biosolids, Stab Ponds

CERT COUNTIES WWTP, STAB PONDS, OPEN & CLOSED LANDFILLS

County	Name	Location	Solids Type	Appl/Prod.	Quantity	Units	Disposal
BLUE EARTH	Amboy WWTP	Amboy	Biosolids	Application	10.01	Dry Tons	To 18.2 acres
BLUE EARTH	Amboy WWTP	Amboy	Biosolids	Production	10.05	Dry Tons	Applied
BLUE EARTH	Amboy WWTP	Amboy	Biosolids	Production	36000	Gallons	Applied
BLUE EARTH	Lake Crystal WWTP	Lake Crystal	Biosolids	Production	16.8	Dry Tons	Applied
BLUE EARTH	Lake Crystal WWTP	Lake Crystal	Biosolids	Application	16.82	Dry Tons	To 11.6 acres
BLUE EARTH	Lake Crystal WWTP	Lake Crystal	Biosolids	Production	144000	Gallons	Applied
BLUE EARTH	Madison Lake WWTP	Madison Lake	Biosolids	Production	10.1	Dry Tons	Applied
BLUE EARTH	Madison Lake WWTP	Madison Lake	Biosolids	Application	19.36	Dry Tons	To 17.6 acres
BLUE EARTH	Madison Lake WWTP	Madison Lake	Biosolids	Production	154600	Gallons	Applied
BLUE EARTH	Mankato WWTP	Mankato	Biosolids	Production	270.2	Dry Tons	Transferred
BLUE EARTH	Mankato WWTP	Mankato	Biosolids	Application	806.4	Dry Tons	To 303.0 acres
BLUE EARTH	Mankato WWTP	Mankato	Biosolids	Production	815.7	Dry Tons	Applied
BLUE EARTH	Mankato WWTP	Mankato	Biosolids	Production	4606	Wet Tons	Applied
BLUE EARTH	Hillcrest Health Care Center	Mankato	Biosolids	Production	4000	Gallons	Transferred
BLUE EARTH	Knollwood Park WWTP	Mankato	Biosolids	Production	16000	Dry Tons	Transferred
BLUE EARTH	Midwest Electric Products Inc	Mankato	Biosolids	Production	6400	Gallons	Transferred
BLUE EARTH	St Clair WWTP	St. Clair	Biosolids	Application	7	Dry Tons	To 10.0 acres
BLUE EARTH	St Clair WWTP	St. Clair	Biosolids	Production	7.4	Dry Tons	Applied
BLUE EARTH	St Clair WWTP	St. Clair	Biosolids	Production	78000	Gallons	Applied

Name	Location	Stab Pond	Facility Class	Design Flow
BLUE EARTH Good Thunder WWTP	Good Thunder	Stab Pond	D	0.06
BLUE EARTH Washington Park Association	Madison Lake	Stab Pond	D	0.01
BLUE EARTH Mapleton WWTP	Mapleton	Stab Pond	D	0.406
BLUE EARTH Pemberton WWTP	Pemberton	Stab Pond	D	0.053

Name	Location	Open Landfill	Size
BLUE EARTH Ponderosa Sanitary Landfill		Open Landfill	

Name	Location	Closed SLF	Size	Stored Waste	Closed
BLUE EARTH Hansen	Mankato	Closed Landfill	14.7 acres/40	240,000 cu yd	1993
BLUE EARTH City Of Mankato SLF	Mankato	Closed Landfill	13.7/17	100,000 cu yd	1973

County	Name	Location	Solids Type	Appl/Prod.	Quantity	Units	Disposal
DODGE	Dodge Center WWTP	Dodge Center	Biosolids	Application	50.44	Dry Tons	To 64.0 acres
DODGE	Dodge Center WWTP	Dodge Center	Biosolids	Production	50.8	Dry Tons	Applied
DODGE	Dodge Center WWTP	Dodge Center	Biosolids	Production	582000	Gallons	Applied
DODGE	Hayfield WWTP	Hayfield	Biosolids	Production	20.68	Dry Tons	Applied
DODGE	Hayfield WWTP	Hayfield	Biosolids	Application	20.855	Dry Tons	To 21.5 acres
DODGE	Hayfield WWTP	Hayfield	Biosolids	Production	533.7	Wet Tons	Applied
DODGE	Hayfield WWTP	Hayfield	Biosolids	Production	128000	Gallons	Applied
DODGE	Mantorville WWTP	Mantorville	Biosolids	Application	2.4	Dry Tons	To 8.0 acres
DODGE	Mantorville WWTP	Mantorville	Biosolids	Production	2.5	Dry Tons	Applied
DODGE	Mantorville WWTP	Mantorville	Biosolids	Production	39600	Gallons	Applied
DODGE	West Concord WWTP	West Concord	Biosolids	Production	24848	Gallons	Transferred

	Closed Sanitary Landfill	Location	Closed Landfill	Size	Stored Waste	Closed	
DODGE	Dodge County SLF	St. Peter	Closed Landfill	11/23 acres	328,000 cu yds	1994	
County	Name	Location	Solids Type	Appl/Prod.	Quantity	Units	Disposal
FARIBAULT	Blue Earth WWTP	Blue Earth	Biosolids	Production	106.5	Dry Tons	Applied
FARIBAULT	Blue Earth WWTP	Blue Earth	Biosolids	Application	109.12	Dry Tons	To 72.0 acres
FARIBAULT	Blue Earth WWTP	Blue Earth	Biosolids	Production	777000	Gallons	Applied
FARIBAULT	Seneca Foods Corp - Blue Earth 2	Blue Earth	Spray	Application	2601982	Gallons	To 106.0 acres
FARIBAULT	Seneca Foods Corp - Blue Earth 2	Blue Earth	Industrial	Production	1.3	Gallons	Applied
FARIBAULT	Seneca Foods Corp - Blue Earth 2	Blue Earth	Industrial	Production	450	Wet Tons	Applied
FARIBAULT	Winnebago WWTP	Winnebago	Biosolids	Production	48	Dry Tons	Applied
FARIBAULT	Winnebago WWTP	Winnebago	Biosolids	Application	48.28	Dry Tons	To 22.0 acres
FARIBAULT	Winnebago WWTP	Winnebago	Biosolids	Production	257400	Gallons	Applied

	Name	Location	Stab Pond	Facility Class	Design Flow
FARIBAULT	Bricelyn WWTP	Bricelyn	Stab Pond	D	0.067
FARIBAULT	Delavan WWTF	Delavan	Stab Pond	D	0.0276
FARIBAULT	Elmore WWTP	Elmore	Stab Pond	D	0.126
FARIBAULT	Frost WWTP	Frost	Stab Pond	D	0.048
FARIBAULT	Kiester WWTP	Kiester	Stab Pond	D	0.09
FARIBAULT	Wells Easton Minnesota Lake WWTP	Wells	Stab Pond	D	1.088

	Name	Location	Closed SLF	Size	Stored Waste	Closed	
FARIBAULT	Faribault County SLF	Blue Earth	Closed Landfill	23.2/40	785,000 cu yds	1990	
County	Name	Location	Solids Type	Appl/Prod.	Quantity	Units	Disposal
FILLMORE	Canton WWTP	Canton	Biosolids	Application	4.483	Dry Tons	To 5.9 acres
FILLMORE	Canton WWTP	Canton	Biosolids	Production	4.52	Dry Tons	Applied
FILLMORE	Chatfield WWTP	Chatfield	Biosolids	Application	165.6	Dry Tons	To 18.0 acres
FILLMORE	Chatfield WWTP	Chatfield	Biosolids	Production	165.93	Dry Tons	Applied
FILLMORE	Chatfield WWTP	Chatfield	Biosolids	Production	248900	Gallons	Applied
FILLMORE	Fountain WWTP	Fountain	Biosolids	Production	4.08	Dry Tons	Applied
FILLMORE	Fountain WWTP	Fountain	Biosolids	Application	4.095	Dry Tons	To 4.5 acres
FILLMORE	Fountain WWTP	Fountain	Biosolids	Production	217.26	Wet Tons	Applied
FILLMORE	Fountain WWTP	Fountain	Biosolids	Production	52100	Gallons	Applied
FILLMORE	Harmony WWTP	Harmony	Biosolids	Application	30.16	Dry Tons	To 13.0 acres
FILLMORE	Harmony WWTP	Harmony	Biosolids	Production	30.2	Dry Tons	Applied
FILLMORE	Harmony WWTP	Harmony	Biosolids	Production	98000	Gallons	Applied
FILLMORE	Lanesboro WWTP	Lanesboro	Biosolids	Application	10.5	Dry Tons	To 5.0 acres
FILLMORE	Lanesboro WWTP	Lanesboro	Biosolids	Production	10.5	Dry Tons	Applied
FILLMORE	Lanesboro WWTP	Lanesboro	Biosolids	Production	40200	Gallons	Applied
FILLMORE	Mabel WWTP	Mabel	Biosolids	Production	80400	Gallons	Transferred
FILLMORE	Preston WWTP	Preston	Biosolids	Production	35	Dry Tons	Applied
FILLMORE	Preston WWTP	Preston	Biosolids	Application	35.105	Dry Tons	To 29.5 acres
FILLMORE	Preston WWTP	Preston	Biosolids	Production	220000	Gallons	Applied
FILLMORE	Rushford WWTP	Rushford	Biosolids	Application	47.4	Dry Tons	To 48.0 acres
FILLMORE	Rushford WWTP	Rushford	Biosolids	Production	48.99	Dry Tons	Applied
FILLMORE	Rushford WWTP	Rushford	Biosolids	Production	435500	Gallons	Applied
FILLMORE	Spring Valley WWTP	Spring Valley	Biosolids	Production	14.08	Dry Tons	Applied
FILLMORE	Spring Valley WWTP	Spring Valley	Biosolids	Application	14.098	Dry Tons	To 10.6 acres
FILLMORE	Spring Valley WWTP	Spring Valley	Biosolids	Production	153600	Gallons	Applied

	Name	Location	Closed SLF	Size	Stored Waste	Closed	
County	Name	Location	Solids Type	Appl/Prod.	Quantity	Units	Disposal
FILLMORE	Ironwood SLF	Spring Valley	Closed Landfill	13/123 acres	200,000 cu yd	1980	
FREEBORN	Albert Lea WWTP	Albert Lea	Biosolids	Production	902	Dry Tons	Applied
FREEBORN	Albert Lea WWTP	Albert Lea	Biosolids	Application	1063.5	Dry Tons	To 601.0 acres
FREEBORN	Albert Lea WWTP	Albert Lea	Biosolids	Production	5509000	Gallons	Applied
FREEBORN	Emmons WWTP	Emmons	Biosolids	Production	6.73	Dry Tons	Transferred

	Name	Location	Stab Pond	Facility Class	Design Flow
FREEBORN	Alden WWTP	Alden	Stab Pond	D	0.159
FREEBORN	Clarks Grove WWTP	Clarks Grove	Stab Pond	D	0.1164
FREEBORN	Freeborn WWTP	Freeborn	Stab Pond	D	0.0356
FREEBORN	Geneva WWTP	Geneva	Stab Pond	D	0.069
FREEBORN	Glenville WWTP	Glenville	Stab Pond	D	0.13
FREEBORN	MNDOT Albert Lea Travel Information Ctr	Glenville	Stab Pond	D	0.0097
FREEBORN	Hartland WWTP	Hartland	Stab Pond	D	0.045
FREEBORN	Hollandale WWTP	Hollandale	Stab Pond	D	0.0427
FREEBORN	Oakland Sanitary District WWTP	Oakland	Stab Pond	D	0.0121
FREEBORN	Twin Lakes WWTP	Twin Lakes	Stab Pond	D	0.03

	Name	Location	Closed SLF	Size	Stored Waste	Closed	
County	Name	Location	Solids Type	Appl/Prod.	Quantity	Units	Disposal
FREEBORN	Albert Lea SLF	Albert Lea	Closed landfill	27/36 acres	1.77 mil cu yds	1993	
GOODHUE	Cannon Falls WWTP	Cannon Falls	Biosolids	Application	14.7	Dry Tons	To 30.0 acres
GOODHUE	Cannon Falls WWTP	Cannon Falls	Biosolids	Production	14.7	Dry Tons	Applied
GOODHUE	Cannon Falls WWTP	Cannon Falls	Biosolids	Production	252500	Gallons	Applied
GOODHUE	Goodhue WWTP	Goodhue	Biosolids	Application	3.71	Dry Tons	To 5.3 acres
GOODHUE	Goodhue WWTP	Goodhue	Biosolids	Production	19.6	Dry Tons	Applied
GOODHUE	Goodhue WWTP	Goodhue	Biosolids	Production	25	Wet Tons	Applied
GOODHUE	Goodhue WWTP	Goodhue	Biosolids	Production	12000	Gallons	Applied
GOODHUE	Kenyon WWTP	Kenyon	Biosolids	Production	8.4	Dry Tons	Applied
GOODHUE	Kenyon WWTP	Kenyon	Biosolids	Application	8.8	Dry Tons	To 11.0 acres
GOODHUE	Kenyon WWTP	Kenyon	Biosolids	Production	104000	Gallons	Applied
GOODHUE	Land O'Lakes - Pine Island	Pine Island	Industrial	Application	48.06	Dry Tons	To 90.0 acres
GOODHUE	Land O'Lakes - Pine Island	Pine Island	Industrial	Production	124	Wet Tons	Transferred
GOODHUE	Land O'Lakes - Pine Island	Pine Island	Industrial	Production	491	Wet Tons	Applied
GOODHUE	Pine Island WWTP	Pine Island	Biosolids	Application	66.631	Dry Tons	To 34.5 acres
GOODHUE	Pine Island WWTP	Pine Island	Biosolids	Production	66.69	Dry Tons	Applied
GOODHUE	Pine Island WWTP	Pine Island	Biosolids	Production	488000	Gallons	Applied
GOODHUE	Red Wing - Bench Street Plant	Red Wing	Biosolids	Production	4100	Dry Tons	Transferred
GOODHUE	Red Wing WWTP	Red Wing	Biosolids	Application	293.4	Dry Tons	To 135.0 acres
GOODHUE	Red Wing WWTP	Red Wing	Biosolids	Production	294	Dry Tons	Applied
GOODHUE	Red Wing WWTP	Red Wing	Biosolids	Production	1199700	Gallons	Applied
GOODHUE	Zumbrota WWTP	Zumbrota	Biosolids	Application	75.6	Dry Tons	To 36.0 acres
GOODHUE	Zumbrota WWTP	Zumbrota	Biosolids	Production	75.6	Dry Tons	Applied
GOODHUE	Zumbrota WWTP	Zumbrota	Biosolids	Production	348900	Gallons	Applied
GOODHUE	Zumbro Ridge Est. Mobile Home Park		Biosolids	Production	62000	Gallons	Transferred

	Name	Location	Closed SLF	Size	Stored Waste	Closed	
GOODHUE	Goodhue Coop SLF	Goodhue	Closed landfill	5.5/85	90,000 cu yd	1983	
County	Name	Location	Solids Type	Appl/Prod.	Quantity	Units	Disposal
HOUSTON	Brownsville WWTP	Brownsville	Biosolids	Application	1.7	Dry Tons	To 10.0 acres
HOUSTON	Brownsville WWTP	Brownsville	Biosolids	Production	1.7	Dry Tons	Applied
HOUSTON	Brownsville WWTP	Brownsville	Biosolids	Production	80000	Gallons	Applied
HOUSTON	Caledonia WWTP	Caledonia	Biosolids	Production	43.2	Dry Tons	Applied
HOUSTON	Caledonia WWTP	Caledonia	Biosolids	Application	43.244	Dry Tons	To 56.9 acres
HOUSTON	Caledonia WWTP	Caledonia	Biosolids	Production	1159	Wet Tons	Applied
HOUSTON	Caledonia WWTP	Caledonia	Biosolids	Production	278000	Gallons	Applied
HOUSTON	Hokah WWTP	Hokah	Biosolids	Production	2.39	Dry Tons	Applied
HOUSTON	Hokah WWTP	Hokah	Biosolids	Application	2.401	Dry Tons	To 5.6 acres
HOUSTON	Hokah WWTP	Hokah	Biosolids	Production	60000	Gallons	Applied
HOUSTON	Houston WWTP	Houston	Biosolids	Application	13.252	Dry Tons	To 41.4 acres
HOUSTON	Houston WWTP	Houston	Biosolids	Production	13.3	Dry Tons	Applied
HOUSTON	Houston WWTP	Houston	Biosolids	Production	255763	Gallons	Applied
HOUSTON	La Crescent WWTP	LaCrescent	Biosolids	Application	28.31	Dry Tons	To 19.0 acres
HOUSTON	La Crescent WWTP	LaCrescent	Biosolids	Production	31	Dry Tons	Applied
HOUSTON	La Crescent WWTP	LaCrescent	Biosolids	Production	136500	Gallons	Applied
HOUSTON	Spring Grove WWTP	Spring Grove	Biosolids	Production	6.07	Dry Tons	Applied
HOUSTON	Spring Grove WWTP	Spring Grove	Biosolids	Application	60.7	Dry Tons	To 10.0 acres
HOUSTON	Spring Grove WWTP	Spring Grove	Biosolids	Production	50250	Gallons	Applied

	Name	Location	Stab Pond	Facility Class	Design Flow
HOUSTON	Eitzen WWTP	Eitzen	Stab Pond	D	0.024

	Name	Location	Closed SLF	Size	Stored Waste	Closed	
HOUSTON	Houston County SLF	Houston	Closed landfill	5.7/30	303,000 cu yd	1983	
County	Name	Location	Solids Type	Appl/Prod.	Quantity	Units	Disposal
LE SUEUR	Le Center WWTP	Le Center	Biosolids	Application	120	Dry Tons	To 12.5 acres
LE SUEUR	Le Center WWTP	Le Center	Biosolids	Production	120	Dry Tons	Applied
LE SUEUR	Le Center WWTP	Le Center	Biosolids	Production	397	Wet Tons	Applied
LE SUEUR	Le Sueur Cheese Pretreatment Fac	Le Sueur	Industrial	Application	1801420.5	Gallons	To 188.5 acres
LE SUEUR	Le Sueur Cheese Pretreatment Fac	Le Sueur	Industrial	Production	1801440	Gallons	Applied
LE SUEUR	Montgomery WWTP	Montgomery	Biosolids	Production	51.48	Dry Tons	Applied
LE SUEUR	Montgomery WWTP	Montgomery	Biosolids	Application	52.3	Dry Tons	To 50.0 acres
LE SUEUR	Montgomery WWTP	Montgomery	Biosolids	Production	837600	Gallons	Applied
LE SUEUR	Seneca Foods Corp - Montgomery	Montgomery	Industrial	Application	35077.65	Dry Tons	To 435.0 acres
LE SUEUR	Seneca Foods Corp - Montgomery	Montgomery	Industrial	Production	35080	Wet Tons	Applied
LE SUEUR	Seneca Foods Corp - Montgomery	Montgomery	Industrial	Application	5856715	Gallons	To 397.0 acres
LE SUEUR	Seneca Foods Corp - Montgomery	Montgomery	Industrial	Production	5896158	Gallons	Applied
LE SUEUR	Waterville WWTP	Waterville	Biosolids	Production	11.79	Dry Tons	Applied
LE SUEUR	Waterville WWTP	Waterville	Biosolids	Application	11.8	Dry Tons	To 2.0 acres
LE SUEUR	Waterville WWTP	Waterville	Biosolids	Production	33.68	Wet Tons	Applied

	Name	Location	Stab Pond	Facility Class	Design Flow
LE SUEUR	Elysian WWTP	Elysian	Stab Pond	D	0.0186
LE SUEUR	Kilkenny WWTP	Kilkenny	Stab Pond	D	0.0228
LE SUEUR	St Peter WWTP	St. Peter	Stab Pond	D	4
LE SUEUR	MDNR Sakatah State Park	Waterville	Stab Pond	D	0.0036

	Name	Location	Closed SLF	Size	Stored Waste	Closed	
LE SUEUR	Sun Prairie SLF	Montgomery	Closed landrill	20/80	130,411 cu yds	1992	
LE SUEUR	Tellijohn SLF	Le Sueur	Closed landrill	27.5/80	1.25 mill cu yd	1993	
LE SUEUR	MN Sanitation Services SLF	St. Peter	Closed landrill	Jul-78	178,000 cu yd	1979	
County	Name	Location	Solids Type	Appl/Prod.	Quantity	Units	Disposal
MOWER	Austin WWTP	Austin	Biosolids	Production	629	Dry Tons	Applied
MOWER	Austin WWTP	Austin	Biosolids	Application	629.4	Dry Tons	To 280.0 acres
MOWER	Austin WWTP	Austin	Biosolids	Production	3496000	Gallons	Applied
MOWER	Hormel Foods Corp - Type IV	Austin	Industrial	Production	8746	Dry Tons	Applied
MOWER	Hormel Foods Corp - Type IV	Austin	Industrial	Application	8746.31	Dry Tons	To 2,864.0 acres

	Name	Location	Stab Pond	Facility Class	Design Flow
MOWER	Dexter WWTP	Dexter	Stab Pond	D	0.0454
MOWER	Haven Hutterian Brethren	Dexter	Stab Pond	D	0.0112
MOWER	Elkton WWTP	Elkton	Stab Pond	D	0.017
MOWER	Grand Meadow WWTP	Grand Meadow	Stab Pond	D	0.12
MOWER	Lansing Township WWT Improvements	Lansing	Stab Pond	D	0.026
MOWER	Leroy WWTP	Le Roy	Stab Pond	D	0.12
MOWER	Lyle WWTP	Lyle	Stab Pond	D	0.1774
MOWER	Racine WWTP	Racine	Stab Pond	D	0.039
MOWER	Rose Creek WWTP	Rose Creek	Stab Pond	D	0.065
MOWER	Sargeant WWTP	Sargeant	Stab Pond	D	0.0106
MOWER	Waltham WWTP	Waltham	Stab Pond	D	0.027

	Name	Location	Closed SLF	Size	Stored Waste	Closed	
MOWER	Red Rock	Austin	Closed landfill	35/80 acres	234,000 cu yd	1980	
MOWER	Adams SLF	Adams	Closed landfill	2/3 acres	50,000 cu yd	1981	
County	Name	Location	Solids Type	Appl/Prod.	Quantity	Units	Disposal
OLMSTED	Byron WWTP	Byron	Biosolids	Production	92.4	Dry Tons	Applied
OLMSTED	Byron WWTP	Byron	Biosolids	Application	104.4	Dry Tons	To 47.0 acres
OLMSTED	Byron WWTP	Byron	Biosolids	Production	506800	Gallons	Applied
OLMSTED	AMPI - Rochester - General	Rochester	Industrial	Application	2947522.98	Gallons	To 789.0 acres
OLMSTED	AMPI - Rochester - General	Rochester	Industrial	Production	2955263.01	Gallons	Applied
OLMSTED	Roch WWTP/Water Reclamation PI	Rochester	Biosolids	Application	2730.51	Dry Tons	To 2,012.0 acres
OLMSTED	Roch WWTP/Water Reclamation PI	Rochester	Biosolids	Production	2731.19	Dry Tons	Applied
OLMSTED	Roch WWTP/Water Reclamation PI	Rochester	Biosolids	Production	13366600	Gallons	Applied
OLMSTED	Seneca Foods Corp - Rochester	Rochester	Industrial	Production	87	Dry Tons	Applied
OLMSTED	Seneca Foods Corp - Rochester	Rochester	Industrial	Application	87.5	Dry Tons	To 35.0 acres
OLMSTED	Stewartville WWTP	Stewartville	Biosolids	Application	75.98	Dry Tons	To 103.3 acres
OLMSTED	Stewartville WWTP	Stewartville	Biosolids	Production	77.88	Dry Tons	Applied
OLMSTED	Stewartville WWTP	Stewartville	Biosolids	Production	934500	Gallons	Applied

	Name	Location	Stab Pond	Facility Class	Design Flow
OLMSTED	Hallmark Terrace Inc	Rochester	Stab Pond	D	0.018

	Name	Location	Open Landfill	Size
OLMSTED	Kalmar Sanitary Landfill		Open Landfill	

	Name	Location	Closed SLF	Size	Stored Waste	Closed
OLMSTED	Olmsted County SLF	Rochester	Closed landfill	51.1/290	2.8 mil cu yd	1993

County	Name	City	Solids Type	Appl/Prod.	Quantity	Units	Disposal
RICE	Faribault WWTP	Faribault	Biosolids	Application	741.542	Dry Tons	To 326.1 acres
RICE	Faribault WWTP	Faribault	Biosolids	Production	742.3	Dry Tons	Applied
RICE	Faribault WWTP	Faribault	Biosolids	Production	3971500	Gallons	Applied
RICE	Morristown WWTP	Morristown	Biosolids	Application	13.5	Dry Tons	To 5.0 acres
RICE	Morristown WWTP	Morristown	Biosolids	Production	13.5	Dry Tons	Applied
RICE	Morristown WWTP	Morristown	Biosolids	Production	107800	Gallons	Applied

	Name	Location	Open Landfill	Size
RICE	Rice County Sanitary Landfill		Open Landfill	

County	Name	City	Solids Type	Appl/Prod.	Quantity	Units	Disposal
STEELE	Blooming Prairie WWTP	Bloom Prairie	Biosolids	Application	9.6	Dry Tons	To 8.0 acres
STEELE	Blooming Prairie WWTP	Bloom Prairie	Biosolids	Production	9.6	Dry Tons	Applied
STEELE	Blooming Prairie WWTP	Bloom Prairie	Biosolids	Production	164000	Gallons	Applied
STEELE	Medford WWTP	Medford	Biosolids	Application	21	Dry Tons	To 10.0 acres
STEELE	Medford WWTP	Medford	Biosolids	Production	21	Dry Tons	Applied
STEELE	Medford WWTP	Medford	Biosolids	Production	141000	Gallons	Applied
STEELE	Lakeside Foods Inc - Owatonna Plant	Owatonna	Industrial	Application	0		To 0.0 acres
STEELE	Lakeside Foods Inc - Owatonna Plant	Owatonna	Industrial	Application	2885.938	Dry Tons	To 692.2 acres
STEELE	Lakeside Foods Inc - Owatonna Plant	Owatonna	Industrial	Production	9837	Dry Tons	Applied
STEELE	Owatonna WWTP	Owatonna	Biosolids	Production	102	Dry Tons	Transferred
STEELE	Owatonna WWTP	Owatonna	Biosolids	Production	361	Dry Tons	Applied
STEELE	Owatonna WWTP	Owatonna	Biosolids	Application	361.4	Dry Tons	To 253.0 acres
STEELE	Owatonna WWTP	Owatonna	Biosolids	Production	2845000	Gallons	Applied

	Name	Location	Stab Pond	Facility Class	Design Flow
STEELE	Ellendale WWTP	Ellendale	Stab Pond	D	0.1003
STEELE	Lazy U Mobile Home Park MNDOT Straight River Rest Area	Medford	Stab Pond	D	0.0218
STEELE		Owatonna	Stab Pond	D	0.0093

	Name	Location	Open Landfill	Size
STEELE	Steele County Sanitary Landfill		Open Landfill	

County	Name	City	Solids Type	Appl/Prod.	Quantity	Units	Disposal
WABASHA	Lake City WWTP	Lake City	Biosolids	Production	166.1	Dry Tons	Transferred
WABASHA	Lake City WWTP	Lake City	Biosolids	Production	2567336	Gallons	Transferred
WABASHA	Plainview -Elgin San Dist WWTP		Biosolids	Production	63	Dry Tons	Applied
WABASHA	Plainview -Elgin San Dist WWTP		Biosolids	Application	63.108	Dry Tons	To 33.5 acres
WABASHA	Plainview -Elgin San Dist WWTP		Biosolids	Production	346000	Gallons	Applied

	Name	Location	Stab Pond	Facility Class	Design Flow
WABASHA	Kellogg WWTP	Kellogg	Stab Pond	D	0.06
WABASHA	Zumbro Falls WWTP	Zumbro Falls	Stab Pond	D	0.0297

	Name	Location	Closed SLF	Size	Stored Waste	Closed
WABASHA	Wabasha County SLF	Wabasha	Closed landfill	8/8.3	272,000 cu yds	1989

County	Name	City	Solids Type	Appl/Prod.	Quantity	Units	Disposal
WASECA	New Richland WWTP	New Richland	Biosolids	Production	11.52	Dry Tons	Applied
WASECA	New Richland WWTP	New Richland	Biosolids	Application	12	Dry Tons	To 15.0 acres
WASECA	New Richland WWTP	New Richland	Biosolids	Production	93000	Gallons	Applied

WASECA	Waseca WWTP	Waseca	Biosolids	Application	105.099	Dry Tons	To 97.9 acres
WASECA	Waseca WWTP	Waseca	Biosolids	Production	105.1	Dry Tons	Applied
WASECA	Waseca WWTP	Waseca	Biosolids	Production	1294678	Gallons	Applied

	Name	Location	Closed SLF	Size	Stored Waste	Closed	
WASECA	Waseca County SLF	Waseca	Closed landfill	24.3/133	400,000 cu yd	1994	
County	Name	City	Solids Type	Appl/Prod.	Quantity	Units	Disposal
WINONA	Lewiston WWTP	Lewiston	Biosolids	Application	15.375	Dry Tons	To 102.5 acres
WINONA	Lewiston WWTP	Lewiston	Biosolids	Production	15.46	Dry Tons	Applied
WINONA	Lewiston WWTP	Lewis ton	Biosolids	Production	639250	Gallons	Applied
WINONA	Winona WWTP	Winona	Biosolids	Application	502.99	Dry Tons	To 280.0 acres
WINONA	Winona WWTP	Winona	Biosolids	Production	503	Dry Tons	Applied
WINONA	Winona WWTP	Winona	Biosolids	Production	3185	Wet Tons	Applied

	Name	Location	Stab Pond	Facility Class	Design Flow
WINONA	MNDOT Enterprise Rest Area	Lewiston	Stab Pond	D	0.0026
WINONA	Rollingstone WWTP	Rollingstone	Stab Pond	D	0.101
WINONA	Stockton WWTP	Stockton	Stab Pond	D	0.07
WINONA	Utica WWTP	Utica	Stab Pond	D	0.04

	Name	Location	Closed SLF	Size	Stored Waste	Closed
WINONA	Geisler's SLF	Stockton	Closed Landfill	6/10 acres	50,000 cu yds	1977

will find out the following info to add Tuesday

	Name	Location	Solids Type	Appl/Prod.	Quantity	Units	Disposal
	St George Community WW System		Biosolids	Production	10000	Gallons	Transferred
	Whitewater River Poll Control Fac		Biosolids	Production	52.8	Dry Tons	Applied
	Whitewater River Poll Control Fac		Biosolids	Application	123.007	Dry Tons	To 153.1 acres
	Whitewater River Poll Control Fac		Biosolids	Production	1341500	Gallons	Applied

CHART 23. E-85 Stations**E85 Fuel Sites as of April 2005:**

Station	Address	City	Status
Freeborn County Coop Cenex	302 E Clark St	Albert Lea	Open
Freeborn County Coop Cenex	125 Northstar Rd	Alden	Open
Freeborn County Coop Cenex	21604 State Highway 56	Austin	Open
Severson's Conoco	1401 4th St NW	Austin	Open
Cenex	347 Hwy 218S	Bloom Prairie	Open
Ampride Express	714 E 14th St	Blue Earth	Open
Farm Country Coop Cenex	1217 5 th St. N.	Cannon Falls	Open
Saver Stop	100 Twilite St.	La Crescent	Open
Seversons Conoco	303 S. Lakeshore Dr.	Lake City	Open
Kwik Trip #334	1271 N River Dr	Mankato	Open
Market Place Shell	100 10 th Ave SE	New Prague	Open
Holiday #60	100 Water St.	Northfield	Open
Central Coop Cenex	712 N. Cedar	Owatonna	Open
Kwik Trip	4120 Hwy 52N	Rochester	Open
Meadowland Cenex	Hwy 68E	Wabasso	Open
Farm Country Coop Cenex	900 3 rd Avenue	Wanamingo	Open
Sportman Stop	1818 N State St	Waseca	Open
Corn Plus - Ethanol Plant	711 6th Ave SE	Winnebago	Open
ProLube Express	1656 W Service Dr	Winona	Open
Severson's Food Plus Conoco	50 Riverview Dr	Winona	Open