



The Power of Leveraging Local and Federal Dollars to Strengthen Agricultural Land Easement Investments

Minnesota, Dakota County - FRPP Economic Research

Farm and Ranch Lands Protection Program Investments

- In 2011 Dakota County received \$1.16 million of FRPP funding. A total of eight landowners had an FRPP easement completed that protected 1,087 acres, 1,020 of which are prime farmland.¹
- As of December 2011, Dakota County has used approximately \$9.48 million of FRPP funds to protect 5,074 acres in the county.² About 70 percent of acres protected by Farmland and Natural Area Program have been farmland projects while the other 30 percent have been natural area projects.³

Minnesota Agriculture Overview

- The state has 81,000 farms representing 27 million acres of farmland (53% of the state's total land area). The average farm size is 332 acres. In 2010 agricultural sales totaled \$15.14 billion (41 percent from livestock).⁴
- Minnesota is the 6th largest agricultural exporting state in the U.S. In 2010 agricultural exports totaled \$5 billion (a 2nd record-high and a 22 percent increase from 2009).⁵
- “Each dollar of agricultural exports generates an additional \$1.36 in economic and business activities. Every \$1 billion of agricultural exports supports 8,000 jobs throughout the state economy—in both rural communities and urban centers. That means Minnesota’s 2010 agricultural exports supported more than 40,000 jobs.”⁶

Dakota County Agriculture Overview

- Dakota County has 246,026 acres of farmland- 65 percent of land in the county. In 2007, there were 1,065 farms and the average farm size was 231 acres.⁷

¹USDA Natural Resources Conservation Service. 2011. *2011 Report: Minnesota's Accomplishments*.

<http://www.mn.nrcs.usda.gov/news/State%20Story/2011_MN_Conservation_Accomplishments.pdf>

² From Proposed Case Studies document

³ *Lands Protected - Dakota County Minnesota*. N.p., 16 Feb. 2012. Web. 18 June 2012.

<<http://www.co.dakota.mn.us/CountyGovernment/Projects/FarmlandNaturalArea/LandsProtected.htm>>

⁴ Minnesota Department of Agriculture. 2012. *Minnesota Agricultural Profile*.

<<http://www.mda.state.mn.us/~media/Files/agprofile.ashx>>

⁵ Minnesota Department of Agriculture. 2012. *Minnesota Agricultural Profile*.

<<http://www.mda.state.mn.us/~media/Files/agprofile.ashx>>

⁶ Dave Frederickson, *Minnesota Agriculture Pumps New Life Into Minnesota Economy*, Commissioner's Column (July 19, 2011), available at <http://www.mda.state.mn.us/about/commissionersoffice/columns/july.aspx> (last visited June 15, 2012).

⁷ U.S. Department of Agriculture. 2007 Census of Agriculture.

- The value of the county’s agricultural output is approximately \$185 million annually. The average market value of goods sold was \$173,435 per farm in 2007. That averages out to \$751 of annual output per acre. On average, Dakota County farms spend \$148,700 on expenses and have an average annual net income of \$39,234.⁸

Top Dakota County Crops by area

Crop	Acres
Corn for grain	111,800
Soybeans for beans	61,704
Forage	12,892
Vegetables harvested for sale	10,790
Peas, green	5,545

U.S. Department of Agriculture. 2007 Census of Agriculture.

Top Dakota County Agricultural Commodities by sales

Crop	Value	% of total
Grains, oilseeds, dry beans, and dry peas	\$65,106,000	35%
Cattle and calves	\$47,144,000	26%
Nursery, greenhouse, floriculture, and sod	\$37,473,000	20%
Milk and other dairy products from cows	\$14,260,000	8%
Vegetables, melons, potatoes, and sweet potatoes	\$12,971,000	7%

U.S. Department of Agriculture. 2007 Census of Agriculture.

Economic Impact of Dakota County Agriculture

Estimated Annual Economic Impact of Dakota County Agriculture

	Crop Production	Livestock Production	Total Impact	Employment Impact
Direct	\$117,315,000	\$67,393,000	\$184,708,000	1,231
Indirect	\$57,460,887	\$75,223,393	\$132,684,280	666
Induced	\$36,622,223	\$26,269,791	\$62,892,014	536
Total	\$211,398,110	\$168,886,184	\$380,284,294	2,433

Source: Output data taken from U.S.D.A. Census of Agriculture, 2007. Output impacts calculated using methodology from Ye, Su. Agricultural Marketing Services Division, Minnesota Department of Agriculture. *Economic Impact of Minnesota's Agriculture*, 2003. Employment impacts calculated using methodology from Ye, Su. Agricultural Marketing Services Division, Minnesota Department of Agriculture. *Economic Impact of Minnesota's Agricultural Industry*, 2003.

- Dakota County farms sold \$185 million worth of agricultural goods in 2007. Livestock production accounted for approximately 36 percent of that output. By employing the same methodology used by the Minnesota Department of Agriculture to measure the statewide economic impact of agriculture, it is possible to estimate the approximate total economic impact of the county’s agriculture industry. As shown in the table above, the “ripple effect” of the industry is substantial. The secondary (indirect and induced) impacts of the industry total almost \$196 million resulting in a total economic impact of over \$380 million.

⁸ U.S. Department of Agriculture. 2007 Census of Agriculture.

Economic Impact of FRPP Protected Farmland

FRPP acres	5,074	
Output per acre	\$751	
Jobs per acre	.005	
	Economic Impact*	
	Economic Output	Employment
Direct	\$3,810,574	25
Indirect	\$2,737,311	14
Induced	\$1,297,479	11
Total	\$7,845,364	50

*Assuming all acreage is used for agricultural production

- If the same methodology is applied to FRPP protected acres, it is possible to calculate a rough estimate of a total annual economic impact of \$7.85 million and 50 jobs from FRPP protected farmland. The combined secondary economic impacts are greater than the direct impact of agricultural output.

How FRPP Benefits Local Farmers

Agriculture-related Businesses

- There are numerous intermediary businesses that ship, process, and distribute products using goods produced by local farmers. In a recent survey, only 12 percent of total farm gross sales came from direct-to-consumer or direct-to-retail markets while 87 percent of farmland owners reported selling goods to wholesale markets, especially private grain elevators and processors.⁹ The number of these businesses is substantial. There are 78 businesses or individuals licensed in wholesale food procurement, manufacturing, or handling in Dakota County.¹⁰
- These businesses play an important economic role by creating value added products from raw agricultural outputs and by connecting farmers to consumers. They also provide jobs to workers who spend their income in local communities. Intermediary businesses require a critical mass of agricultural operations to remain profitable. Without enough farmland, there is not enough production to sustain these operations.
- A thriving agriculture industry also supports local agri-businesses that provide farm inputs such as farm equipment, fertilizers, and services to local farmers. Dakota County farmers spend \$11.1 million annually, or \$10,460 per average operation, on supplies and repairs alone.¹¹ Much of this spending is at local businesses. In 2009, there were 30 businesses primarily involved in wholesale selling of farm supplies, equipment, or machinery in the county. These businesses provide jobs by the tune of \$24 million in annual wages.¹² The prevalence of local agri-businesses that provide farming inputs is reflected by the 93 percent

⁹ Oberholtzer, L. and D. Esseks. 2008. *Case Study Report, Dakota County, Minnesota: Farm Viability in Urbanizing Areas*. University of Nebraska-Lincoln.

¹⁰ Minnesota Department of Agriculture Licensing Information System (LIS). Accessed 6/15/2012.

¹¹ U.S. Department of Agriculture. 2007 Census of Agriculture.

¹² Source: U.S. Census Bureau. 2009 County Business Patterns.

of farmland owners using goods and services from implement dealers who report that these inputs are available always or most of the time.¹³

Dakota County Agriculture-Related Businesses (2009)

Business Type	Operations	Employees	Annual Payroll
Manufacturing			
Food manufacturing	38	3,155	\$121,462,000
Textile product mills	9	95	\$3,694,000
Non-Manufacturing			
Nursery, garden center, and farm supply stores	20	159	\$4,738,000
Farm supplies merchant wholesalers Nursery, garden center, and farm supply stores	16	n/a	\$13,019,000
Farm and garden machinery and equipment merchant wholesalers	14	178	\$11,026,000
Farm machinery and equipment manufacturing	3	74	\$2,264,000
Support activities for animal production	5	20	\$188,000
Total	105	3,681	\$156,391,000

Source: U.S. Census Bureau. 2009 County Business Patterns.

- Agriculture-related businesses provide over 3,680 jobs representing more than \$156 million in annual wages to workers in Dakota County. Food manufacturing provides the greatest number of jobs by far with 3,155 employees and an annual payroll of over \$121 million.

Access to Markets

- Farmland preservation in urbanizing areas, such as the Minneapolis-Saint Paul metro area, is especially important for several reasons including reduced transportation costs and access to markets.
- The Minneapolis-Saint Paul market is within 40 minutes of most Dakota County farms and agricultural leaders interviewed recently indicated that there are an ample number of buyers of agricultural products in the area including grain elevators, feed plants, and ethanol facilities. A survey of county farmland owners found that 80 percent were very satisfied or moderately satisfied with the accessibility of marketing outlets.¹⁴

¹³ Oberholtzer, L. and D. Esseks. 2008. *Case Study Report, Dakota County, Minnesota: Farm Viability in Urbanizing Areas*. University of Nebraska-Lincoln.

¹⁴ Oberholtzer, L. and D. Esseks. 2008. *Case Study Report, Dakota County, Minnesota: Farm Viability in Urbanizing Areas*. University of Nebraska-Lincoln.

Dakota County Agricultural Marketing Outlets ¹⁵

Type of Market	Average percentage of farms' total gross sales
Wholesale markets (total)	87
Private grain elevator	59
Processor	14
Livestock feed company	2
Grower's cooperative	2
Distributor, broker, or handler	1
Other wholesale markets	8
Consumer-direct (total)	11
Direct on-farm, farmstand, U-pick	6
Farmers' market	1
Other consumer direct	3
Direct-to-retail (total)	1
Other agricultural enterprises (e.g., ag tourism, horseback riding)	7

A Stabilizing Industry in Tough Economic Times

- While every other sector of the economy has slowed since the economy started to decline in 2008, agriculture has remained strong, which has helped support a recovery in other sectors, such as manufacturing. Minnesota's agricultural exports grew 22 percent between 2009 and 2010, well above the national rate of 13 percent.¹⁶
- The food manufacturing's close relationship with the local agriculture industry means it is relatively stable, even in tough economic times. In the midst of the economic crisis, the number of food-manufacturing jobs in Dakota County actually increased by 26.4 percent or 558 jobs between 2006 and 2009 to become one of the leading manufacturing employers in the county. Food manufacturing was one of only two manufacturing sectors in the county that saw job growth in the recent recession.¹⁷

Water Quality

- Farmland preservation through the Farmland and Natural Area Program help protect the water quality of the key designated rivers and streams, including the Vermillion River, by requiring vegetative buffers that filter runoff from agriculture operations, prevent erosion, and moderate water temperatures to sustain fish populations.
- According to Trout Unlimited, the Vermillion River is the only remaining world-class trout stream in a major metropolitan area in the United States.¹⁸ In 2006, an estimated 27,000 people went trout fishing in Minnesota.¹⁹ One study found that each angler spends

¹⁵ Oberholtzer, L. and D. Esseks. 2008. *Case Study Report, Dakota County, Minnesota: Farm Viability in Urbanizing Areas*. University of Nebraska-Lincoln.

¹⁶ Dave Frederickson, *Minnesota Agriculture Pumps New Life Into Minnesota Economy*, Commissioner's Column (July 19, 2011), available at <http://www.mda.state.mn.us/about/commissionersoffice/columns/july.aspx> (last visited June 15, 2012).

¹⁷ Harper, Jessica. *Food Manufacturing Thrives Despite Recession*. Dakota County Tribune. Vol. 31 #12. May 20, 2010.

¹⁸ U.S. Environmental Protection Agency. 2005. *Targeted Watersheds Grants: Vermillion River, Minnesota*. <http://water.epa.gov/grants_funding/twg/upload/2007_04_04_watershed_initiative_2005_vermillion_river.pdf>

¹⁹ U.S. Fish and Wildlife Service. 2010. *Trout Fishing in 2006: A Demographic Description and Economic Analysis*. <http://library.fws.gov/Pubs/nat_survey2006_troutfishing.pdf>

\$29 per day around their home area or \$57 when away from home while fishing in streams. In 2002, the total economic impact of cold water angling accounted for up to \$157 million in direct sales, \$95.2 million in income, and 3,480 jobs in Minnesota.²⁰

- The value of the river's water quality is reflected by the Metropolitan Council's decision to spend millions of dollars to build a 12-mile tunnel to carry treated wastewater to the Mississippi River rather than discharging water directly into the Vermillion.²¹

Public Support

- Dakota County's 2001 resident survey found that 96 percent of respondents were interested in protecting natural areas and lakes. Another 54 percent of respondents had a strong interest in protecting farmland.²²
- In 2002, a poll of Dakota County residents found that 63 percent of voters would support a \$20 million bond aimed at protecting natural areas and farmland. Their support indicates a willingness to essentially tax themselves, about \$17 per year for a typical homeowner, to protect these areas.²³ In November 2002, Dakota County voters approved a \$20 million bond by a strong margin of 57 percent to 43 percent.²⁴

The Need for FRPP

- Permanent farmland preservation sends a signal to other farmers that they can expect local agriculture to continue and exist in the future. This is important because of what is referred to as the "impermanence syndrome" which refers to the fact that farmers in urbanizing areas do not make new investments in their operation and have a tendency to sell their property to developers because they don't believe in the long-term persistence of local agriculture.²⁵
- The county's agriculture industry is under pressure from population growth from the Minneapolis-St. Paul urban area in the northern part of the county. During the 1990s, approximately 68,000 acres of residential development were added in the seven-county metro region, while 141,000 acres of agricultural and undeveloped land were converted to other uses.²⁶ Dakota County's population is expected to grow by 164,106 people and 78,249 homes between 2000 and 2030. The land consumption rate is expected to be between 2,000

²⁰ Gartner, W.C., L.L. Love, D. Erkkila, and D.C. Fulton. 2002. *Economic Impact and Social Benefits Study of Coldwater Angling in Minnesota*. Prepared for Minnesota Department of Natural Resources.

<<http://files.dnr.state.mn.us/fisheries/management/coldwateranglingreport.pdf>>

²¹ Hemphill, S. (2008, October 29). A trout stream is saved in the midst of suburban growth. *Minnesota Public Radio*.

<http://minnesota.publicradio.org/display/web/2008/10/28/vermillion_river_saved/>

²² *Program History - Dakota County Minnesota*. N.p., 12 Apr. 2011. Web. 18 July 2012.

<<http://www.co.dakota.mn.us/CountyGovernment/Projects/FarmlandNaturalArea/ProgramHistory.htm>>

²³ The Trust for Public Land. 2002, March 19. *MN Poll Supports Open Space Protection*.

<<http://www.tpl.org/news/press-releases/mn-poll-supports-open-space-protection.html>>

²⁴ *Program History - Dakota County Minnesota*. N.p., 12 Apr. 2011. Web. 18 July 2012.

<<http://www.co.dakota.mn.us/CountyGovernment/Projects/FarmlandNaturalArea/ProgramHistory.htm>>

²⁵ Dakota County Office of Planning. 2002. *Dakota County Farmland and Natural Area Protection Plan*.

²⁶ Metropolitan Council, MetroStats: "Trends in Land Use in the Twin Cities Region" (August 2011), available at <http://stats.metc.state.mn.us/stats/pdf/MetroStats_LandUse2010.pdf> (last visited June 15, 2012).

and 3,000 acres a year.²⁷ In a 2006 survey of farm owners, only 39 percent of those responding reported they had no plans to develop any of their lands.²⁸

- The competition for land has not only meant the loss of productive farmland, but has increased land values, therefore creating a significant barrier to those wanting to purchase farmland for agricultural uses. High land prices contribute to the exceptionally high start up costs faced by those interested in farming in Dakota County. The start-up costs for an operation growing corn and soybeans, or raising large scale livestock, were estimated to be over \$2 million in Minnesota.²⁹ In Dakota County, the average value of agricultural land, buildings, and equipment was \$1.04 million per operation in 2007.³⁰
- Land rents are also rising. In 2011, the average annual rent for non-irrigated farmland in Dakota County was \$147 per acre, up 26 percent from \$117 in 2008 and up 8 percent from just 2010.³¹
- In a 2006 survey, an overwhelming 85 percent of county farmland owners reported that purchasing farmland was not affordable with 61 percent saying farmland is not at all affordable. Only 4 percent said buying farmland was affordable. At the time farmland was being sold from \$30,000 up to \$100,000 an acre in the northern part of the county while still selling as high as \$11,000 an acre outside the area being developed in the north. A majority (53 percent) also felt that renting farmland was not affordable.³² In 2007, 38 percent of operations (402 operations) were leasing farmland, up from 30 percent in 2002.
- Despite growing pressure, farmland protection efforts have proven successful in Dakota County. During the five-year period from 2002 to 2007, the number of farms located in the seven-county metro region decreased in all counties except for Dakota County. While this area saw a total loss of 369 farming operations, Dakota County gained 68 farm operations.³³

About this project

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²⁷ Dakota County Office of Planning and Analysis. 2009. Dakota County Comprehensive Plan. <<http://www.co.dakota.mn.us/NR/rdonlyres/00002e4b/jyespfaciazckjyrwtpaetqebyvdrnqh/landuseandgrowth.pdf>>

²⁸ Oberholtzer, L. and D. Esseks. 2008. *Case Study Report, Dakota County, Minnesota: Farm Viability in Urbanizing Areas*. University of Nebraska-Lincoln.

²⁹ Egerstrom, Lee. 2011. *Made in Minnesota 2011: Fertile Ground for Minority Opportunity*. <http://www.mn2020.org/assets/uploads/article/Fertile_Ground_web.pdf>

³⁰ U.S. Department of Agriculture. 2007 Census of Agriculture.

³¹ U.S.D.A. National Agricultural Statistics Service Annual Survey.

³² Oberholtzer, L. and D. Esseks. 2008. *Case Study Report, Dakota County, Minnesota: Farm Viability in Urbanizing Areas*. University of Nebraska-Lincoln.

³³ United States Department of Agriculture, National Agricultural Statistics Service, 2007 Census of Agriculture, County Profiles, available at http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/County_Profiles/Minnesota/ (last visited June 15, 2012).

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About the Land Trust Alliance

The mission of the Land Trust Alliance is to save the places people love by strengthening land conservation across America. Land trusts are nonprofit organizations that work with private landowners to voluntarily conserve forests, farms, parks and other cherished places that enrich our lives. We focus our work on three strategic goals: accelerating the pace, improving the quality, and ensuring the permanence of conservation. By building highly effective and well-governed land trusts that protect lands with the highest values to their communities and ensure their protection in perpetuity, we can preserve healthy human and natural communities, clean air and water, beautiful vistas, recreation areas and working lands.

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