



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

### Michigan - FRPP Economic Research

#### Farm and Ranch Lands Protection Program Investments

- Since 1996 the Farmland Protection Program (FPP) now the Farm and Ranch Lands Protection Program (FRPP) has played a vital role in protection of farmland with prime, unique and soils of local importance across the state of Michigan.<sup>1</sup> Natural Resources Conservation Service (NRCS)-Michigan has partnered with 20 different cooperating entities. These entities state and local governments include 5 townships, 4 counties, two municipalities and the State of Michigan's Farmland and Open Space Preservation Program (NREPA Act 451 of 1994). Cooperative agreements have also been entered into with 7 land conservancy's to acquire farmland preservation easements. To date, NRCS-Michigan has secured FRPP easements on 79 parcels totaling 11,198 acres including 8,435 acres of soils that prime, unique or of local importance farmland. Total outlays for the program to date include \$22,067,371 of Federal payments, \$33,384,174 of entity match and \$7,763,589 in landowner contributions.
- Currently NRCS-Michigan has 34 parcels pending that will acquire an additional 3,113 acres of which 2,547 acres are of soils that are prime, unique or of local importance. Expected Federal outlays are \$6,902,041 with an entity match of \$6,400,833 and \$2,675,619 in landowner contribution. NRCS-Michigan is leveraging 61% local funding support for every Federal dollar expended.
- The Leelanau conservancy is a qualified 501 (c) (3) non-profit land trust whose mission is "To conserve the land, water and scenic character of Leelanau County." Established in 1988, the Conservancy has protected over 8,000 acres of land through fee-simple purchase and donation of conservation easement. The Conservancy currently holds over 150 conservation easements and employ's twelve full and part-time staff members. To date, Leelanau Conservancy has entered into five cooperative agreements and acquired 5 FRPP conservation easements totaling 619 acres. Leelanau Conservancy has contributed \$1,897,176 and received \$1,457,667 in FRPP payments.
- The Grand Traverse Regional Land Conservancy (GTRLC) is a qualified 501 (c) (3) non-profit land trust whose mission is "Protecting Significant Natural, Scenic and Farm Lands, and Advancing Stewardship, Now and for All Future Generations." Established in 1991, the GTRLC has protected over 1,640 acres of land through fee-simple purchase and donation of conservation easement. The GTRLC currently holds over 200 conservation easements and employs 20 full and part-time staff members. To date, GTRLC including its partners, has entered into 6 cooperative agreements and acquired 12 FRPP conservation easements totaling 741 acres. GTRLC and its partners have contributed \$1,899,508 and received \$1,829,492 in FRPP payments.

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<sup>1</sup> Michigan Natural Resources Conservation Service. 2012. NATURAL RESOURCES CONSERVATION SERVICE-MICHIGAN FARM AND RANGLAND PROTECTION PROGRAM PLAN 2012

## Michigan Agriculture Overview

- Michigan’s food and agriculture system is a major contributor to income and employment in the state’s economy.<sup>2</sup> The food and agriculture system accounts for approximately \$91.4 billion in direct, indirect and induced economic activity. This sector also accounts for an excess of 923,000 jobs both directly, indirectly and through induced activity.
- The food and agriculture system is fairly complex. The supply chain for products produced by this sector goes through several steps. Inputs are used at the farm level to grow the crops, livestock and milk, and fruits and vegetables. Farm products in turn are collected, graded, sorted, etc. After this step, the commodities are sent to food processors to create manufactured food products or in the case of fresh fruits and vegetables sent to wholesalers and brokers to be sold to retailers such as supermarkets or the food service industry. The manufactured food markets are then wholesaled and retailed or consumed in restaurants.
- The state is a major producer of fruits. The largest fruit categories in dollar terms are apples, blueberries, and tart cherries. The state leads the nation in the production of tart cherries and blueberries. The direct economic impact of fruit production in the state is \$337.9 million. The total economic activity including backward linked industries related to fruit production is \$758.4 million.
- The average economic impact of tart cherries from 2008 to 2010 was \$42,757,000 in direct impact and \$95,972,000 in total impact. The average economic impact of sweet cherries from 2008 to 2010 was \$13,192,000 in direct impact and \$29,610,000 in total impact.
- The next step along the supply chain from the farm level is food processing and manufacturing. Intermediate steps such as collection, transportation, grading, sorting, etc. are backward linked to food processing and manufacturing. Just as there is a multiplier effect for farming there is also a multiplier effect for food processing and manufacturing. The total size of the food processing and manufacturing industries is \$14.7 billion in direct economic activity and approximately \$24.6 billion in total economic activity. Indirect and induced economic activity resulting from food processing and manufacturing is about \$9.91 billion.
- The economic impact of fruit and vegetable canning, pickling, and drying in 2007 was \$985,837,000 in direct impact, \$669,427,000 in indirect and induced impacts, and \$1,655,264,000 in total impacts.
- The economic impact of wineries in 2007 was \$30,995,000 in direct impact, \$20,228,000 in indirect and induced impacts, and \$51,223,000 in total impacts.
- In 2007, the state had 56,014 farmers, not all of them full-time producers. There were also 86,072 hired farm workers in 2007.

### Economic Impact of Michigan Crop Damage Spring 2012.

Crop	Estimated Loss	Economic Impact of Loss
Sweet cherries	\$11,644,000	\$27,964,000
Tart cherries	\$38,498,000	\$92,454,000
<b>All crops</b>	<b>\$209,766,000</b>	<b>\$502,864,000</b>

<sup>2</sup> Knudson, William and H. Christopher Peterson. The Economic Impact of Michigan’s Food and Agriculture System. The Strategic Marketing Institute Working Paper. Michigan State University March 2012.

### **Northwest Michigan Agriculture Overview**

- The six-county region of Michigan's northwest Lower Peninsula includes Leelanau, Grand Traverse, Antrim, Benzie, Kalkaska, and Wexford Counties.<sup>3</sup>
- Agriculture contributes as much as \$97.7 million annually to the local economy in the form of agricultural products sold. It employs more than 2,000 farm proprietors with net farm earnings of \$6.6 million and more than 3,000 workers with a total payroll of \$12.8 million.
- If indirect impacts are included (i.e., the backward linked impacts of agriculture on other businesses), the total annual economic impact may be as high \$138.9 million.
- Fruit accounts for almost half of the direct impact making it the single largest segment of the regional agricultural sector. The direct impact of fruit in the region is \$46,277,000; indirect impact \$20,362,000; total impact \$66,639,000.
- There are 17,431 acres of tart cherries in the region accounting for 51.7% of Michigan's acreage. The value of production of tart cherries in the region is \$24,739,000.
- There are 7,970 acres of sweet cherries in the region accounting for 79.9% of Michigan's acreage. The value of production of sweet cherries in the region is \$12,304,000.
- Agriculture is not the largest economic sector in the region but it is locally important. Sales of agricultural products are one-half of those for retail trade and over a third the size of sales in the manufacturing sector.
- In terms of its share of economic activity, agriculture is four times more important to the region than it is to the state as a whole.
- Substantial opportunities exist to increase farm profitability by tapping into higher-value fresh markets, both direct and wholesale.
- The region's farmers are entrepreneurially oriented. More than 12 percent of farms in the region sold some products directly to consumers in 2007 compared to only 9 percent statewide. More than 6 percent of the region's farms produced and sold value-added commodities in 2007 compared to 4 percent statewide.

### **Leelanau and Grand Traverse Counties Agriculture Overview**

- In 2007 Leelanau County had 55,751 acres in agriculture.<sup>4</sup> There were 449 farms and the average farm size was 124 acres. The average market value of the goods sold was \$78,628 and the average per farm income was \$17,944 or \$145 per acre.
- In 2007 Grand Traverse County had 62,577 acres in agriculture. There were 522 farms and the average farm size was 120 acres. The average market value of the goods sold was \$36,865 and the average per farm income was \$2,955 or \$25 per acre.

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<sup>3</sup> Krieger, Doug. Northwest Michigan's Farm Factor: Economic Impacts, Challenges, and Opportunities. Prepared for Michigan Land Use Institute. February 2009.

<sup>4</sup> US Department of Agriculture 2007 Census of Agriculture

### Top County Crops by Area

Crop	Acres	
	Leelanau County	Grand Traverse County
Cherries – Tart	9,514	4,108
Forage	5,947	11,189
Cherries – Sweet	4,304	2,003
Corn for Grain	2,725	6,789
Apples	1,503	-
Wheat for Grain	-	1,496

Source: USDA 2007 Census of Agriculture

### Top County Commodity Groups by Sales

Crop	Sales	
	Leelanau County	Grand Traverse County
Fruits, tree nuts, and berries	\$28,975,000	\$10,948,000
Cattle and calves	\$1,798,000	\$2,044,000
Grains, oilseeds, dry beans, and dry peas	\$471,000	\$1,703,000
Other crops and hay	\$542,000	\$1,165,000
Milk and other dairy products from cows	\$1,014,000	\$728,000
Nursery, greenhouse, floriculture, and sod	\$1,285,000	\$1,023,000

Source: USDA 2007 Census of Agriculture

### Economic Impact of FRPP Protected Farmland

- Using the methodology from the Krieger report it is possible to calculate a rough estimate of a total annual impact of \$3.08 million from FRPP lands conserved by Peninsula Township, the Leelanau Conservancy and the Grand Traverse Regional Land Conservancy.

Estimated Economic Impact of FRPP Protected Farmland in Partnership with Peninsula Township, Grand Traverse Regional Land Conservancy, and Leelanau Conservancy as of 2012* <sup>5</sup>			
FRPP Acres	Acres	Direct Value	Indirect Value
Sweet Cherries	460	\$710,103	\$1,022,548
Tart Cherries	1,006	\$1,427,766	\$2,055,984
<b>Total FRPP</b>	<b>1,466</b>	<b>\$2,137,869</b>	<b>\$3,078,532</b>
*Assuming 75 percent of protected acreage is used for cherry production			
Note: Indirect value includes employment earnings. Jobs are not specifically broken out.			

### Agriculture Related Businesses

- As discussed above the next step along the supply chain from the farm level is food processing and manufacturing. See the table below for agriculture related businesses in the two counties.

<sup>5</sup> These calculations follow the methodology used by Doug Krieger in *Northwest Michigan's Farm Factor: Economic Impacts, Challenges, and Opportunities*. Prepared for Michigan Land Use Institute. February 2009.

<b>Agriculture Related Businesses</b>			
<b>Business Type</b>	<b>Operations</b>	<b>Employees</b>	<b>Annual Payroll</b>
Grand Traverse County			
Food Manufacturing	19	756	\$29,469,000
Wineries	5	73	\$2,366,000
Leelanau County			
Food Manufacturing	5	391	\$2,168,000
Wineries	11	86	\$2,317,000
<b>Total</b>	<b>40</b>	<b>1,306</b>	<b>\$36,320,000</b>

Source: US Census Bureau. 2010 County Business Patterns

### Wineries

- Michigan has 14,600 acres of vines, making Michigan the fourth-largest grape-producing state in the nation.<sup>6</sup>
- 2,000 acres are devoted to wine grapes, making Michigan the eighth state in wine grape production in the United States. The Leelanau Peninsula contains 23% of the state wine grape acreage, or 460 acres. The Old Mission Peninsula contains 25% of the state wine grape acreage, or 500 acres.
- The wine industry contributes more than \$300 million annually to Michigan's economy.
- Michigan's vineyard acreage has grown 60% over the last 10 years.

### Tourism

- The 6 County region enjoys an active tourism industry that brings in as many as 1.4 million visitors annually, many of whom drive around the countryside and purchase agricultural products.<sup>7</sup>
- Tourism is certainly a large part of the success of the PDR program.<sup>8</sup> The preservation of open space, scenic viewsheds and farmland promotes tourism. Old Mission Peninsula is an internationally recognized wine growing region and that is not the only reason to visit the area. The views of Grand Traverse Bay are breathtaking and the peninsula has many historic sites. Additionally, there are the winter sports of cross country skiing, snowshoeing and sledding, along with the fall color tours and apple harvests. Outdoor recreation is enjoyable as the peninsula has many fine hiking trails, and there is always biking, swimming, sailing, and fishing. Each summer, thousands of tourists spend time on the peninsula. Preservation encourages tourists to continue visiting the area, as the township retains its unique character and sense of place.
- Wineries are popular tourist destinations, attracting more than 1 million visitors annually.

<sup>6</sup> Michigan Grape and Wine Industry Council. Michigan's Grape and Wine Industry Fast Facts. March 2012.

<sup>7</sup> Krieger, Doug. Northwest Michigan's Farm Factor: Economic Impacts, Challenges, and Opportunities. Prepared for Michigan Land Use Institute. February 2009.

<sup>8</sup> Daniels, Tom. An Evaluation of the Peninsula Township Farmland Preservation Program. Prepared for the Grand Traverse Regional Land Conservancy. July 2008.

## Public Support

- Peninsula Township was a state leader in using PDRs to protect its orchards from encroaching development.<sup>9</sup> Residents and officials alike realized that the economic value of orchards was interwoven with the tourism of the area and that development would endanger both. A 1.25 mil property tax millage was approved in 1994. The millage was expected to yield \$15,360,000.<sup>10</sup> Within a year more than 45 farmers applied for the program.<sup>11</sup>
- The PDR program proved popular among the farming community, and further funding became necessary.<sup>12</sup> In November of 2002, 60% of the voters approved a second millage increase from 1.25 to 2 mills along with a 20 year extension. The new millage increase was projected to yield \$15,360,000 over 20 years for the purchase of development rights on the peninsula.
- In addition, the Town Board has authorized and sold \$10 million in bonds in 2004 and 2005.<sup>13</sup>
- The success has continued in Peninsula Township. In 2008, voters passed a 10-year, 0.475 mill levy to purchase parkland.<sup>14</sup> It is project to yield \$2,596,540 over 10 years.

## The Need for FRPP

- High land values brought about by rapid population growth represent a real threat to the agricultural land base and industry in the region.<sup>15</sup> Increasing the profitability of farms can help agriculture compete better against development for the land base, improve incomes for farm families, attract new farmers to farming, and help preserve the amenities agriculture provides to the region's residents.
- One of the key elements of a successful Purchase of Development Rights program is the support of the area farmers.<sup>16</sup> Before the adoption of the Peninsula Township PDR program, a researcher from Michigan State University asked 23 of the "oldest farm families, 'would you sell your farm or would you like to pass it on?' and 21 out of 23 said they would like to pass it on in their families, but the land values had gotten so high that the kids just couldn't afford to purchase it." These responses suggested support for a PDR program, because the program would enable the farmers to remain on their land and to continue to support the industry on the Peninsula instead of selling to developers.
- The change in agricultural output since the inception of the Township's PDR program would be an important measure of success. However, county agricultural census statistics are not broken down by township, so it is not possible to get an accurate measure of the value

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<sup>9</sup> Hansen, Fay M. Saving open spaces and special places. *Oakland Journal*, 8:9-26, Winter 2005.

<sup>10</sup> Trust for Public Land. LandVote.

<sup>11</sup> Hansen, Fay M. Saving open spaces and special places. *Oakland Journal*, 8:9-26, Winter 2005.

<sup>12</sup> Daniels, Tom. An Evaluation of the Peninsula Township Farmland Preservation Program. Prepared for the Grand Traverse Regional Land Conservancy. July 2008.

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<sup>15</sup> Krieger, Doug. Northwest Michigan's Farm Factor: Economic Impacts, Challenges, and Opportunities. Prepared for Michigan Land Use Institute. February 2009.

<sup>16</sup> Daniels, Tom. An Evaluation of the Peninsula Township Farmland Preservation Program. Prepared for the Grand Traverse Regional Land Conservancy. July 2008.

of agricultural production in Peninsula Township over time. But a visual inspection of the township quickly shows substantial recent investment in new fruit trees, grape plantings, and wineries. This bodes well for the future of agriculture in the township and for attracting interest from farmers in the sale of development rights.

- Only one farm has been lost within the Agricultural Protection Zone since the passage of the first millage for the purchase of development rights in 1994. This indicates stability in the local land market, and that farmers are holding onto their land, rather than selling it for homesites.

### **About this project**

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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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