AGRICULTURAL IMPACT STATEMENT

Hartford Municipal Airport Runway Realignment and Extension
Washington County
Wisconsin Department of Transportation, Bureau of Aeronautics
AIP 3-55-0026-08

I. INTRODUCTION

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) has prepared this agricultural impact statement (AIS) in accordance with §32.035, *Wisconsin Statutes*. The AIS is an informational and advisory document that describes and analyzes the potential effects of the project on farm operations and agricultural resources, but cannot stop a project.

The DATCP is required to prepare an AIS when the actual or potential exercise of eminent domain powers involves an acquisition of interest in more than 5 acres of land from any farm operation[1]. The DATCP may choose to prepare an AIS if an acquisition of 5 or fewer acres will have a significant impact on a farm operation. Significant impacts could include the acquisition of buildings, the acquisition of land used to grow high-value crops, or the severance of land. The DATCP should be notified of such projects regardless of whether the proposing agency intends to use its condemnation authority in the acquisition of project lands. The proposing agency may not negotiate with or make a jurisdictional offer to a landowner until 30 days after the AIS is published.

The DATCP is not involved in determining whether or not eminent domain powers will be used or the amount of compensation to be paid for the acquisition of any property. The AIS reflects the general objectives of the DATCP in its recognition of the importance of conserving important agricultural resources and maintaining a healthy rural economy.

Sources of information used to prepare this statement include the *Wisconsin 2011 Agricultural Statistics Bulletin* and other yearly issues; the *2007 Census of Agriculture*; Washington County Extension; the *Washington County Farmland Preservation Plan*; the *Soil Survey of Washington and Ozaukee Counties*; Mead & Hunt, the consulting firm for this project; and the owners and operators of the affected farmland.

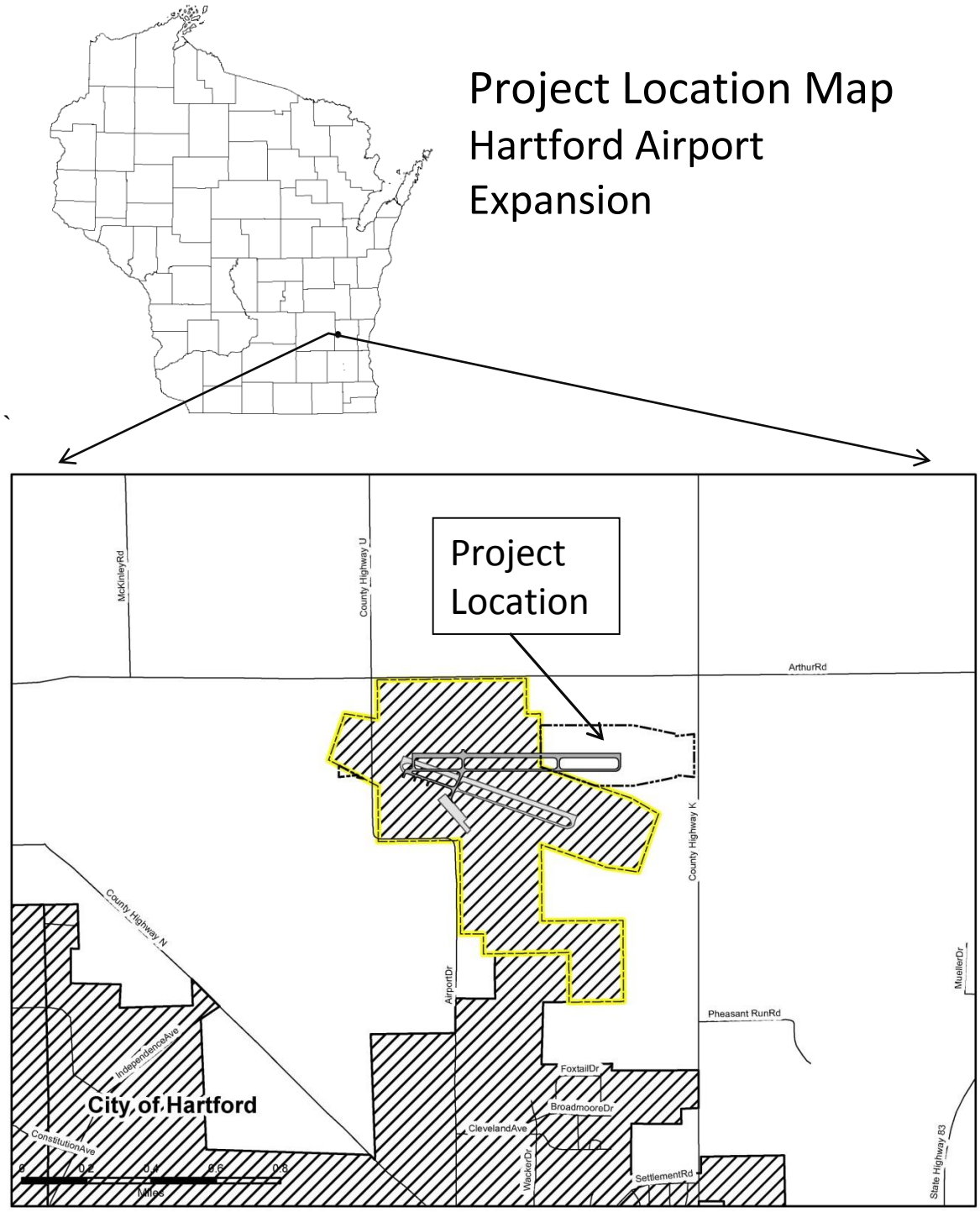
II. DESCRIPTION OF THE PROJECT

The city of Hartford has petitioned the Secretary of the Wisconsin Department of Transportation (WisDOT) in accordance with section 114.33 of the *Wisconsin Statutes* for federal and state aid to acquire 50 acres of land in fee-simple[2] and 10.7 acres of avigation easement.[3] The land and

[1]The term *farm operation* includes all owned and rented parcels of land; buildings and equipment; livestock; and personnel used by an individual, partnership, or corporation under single management to produce agricultural commodities.

[2]A fee-simple acquisition means that the buyer purchases exclusive rights to the property. This is in contrast to an easement where a buyer purchases partial rights to property.

[3] An avigation easement grants the owner of the easement the "right of flight" over the affected property. The easement provides the owners of the property compensation for noise and other noxious



effects of aircraft operations.

easement to be acquired are located in sections 7 and 8 of the town of Hartford T10N-R18E in Washington County. Refer to the Project Location Map on page 2. The proposed acquisitions are expected to be made in late 2012 and construction will start in the summer of 2013.

The city of Hartford in coordination with WisDOT's Bureau of Aeronautics (BOA) is proposing to relocate the existing primary runway from its current 11/29 (west-northwest to east southeast) alignment to a straight 9/27 (west to east) alignment. It is proposed that this runway be extended 400 feet for a total length of 3,400 feet. In addition, a full-length parallel taxiway is proposed to be constructed 240 feet to the south of the realigned primary runway.

Existing Facilities

The existing Hartford Municipal Airport is located on the east side of County Highway "U" and northeast of the Dodge industrial park. The airport's primary runway, Runway 11/29, is 3,000 feet long by 75 feet wide and it is paved. It serves small piston engine and turboprop airplanes. The pavement is strength rated at 30,000 pounds for aircraft equipped with single-wheel landing gear and 45,000 pounds for dual-wheel landing gear.

The crosswind runway, Runway 18/36, is a turf runway that is situated in a north/south direction. It is 2,250 feet long by 195 feet wide, and typically serves ultra-light and sailplane aircraft.

In 2010, there were 135 aircraft based at the airport in two separate hangar areas. One was located north and the other south of Runway 11/29.

Project Need and Purpose

The BOA has indicated that:

"The need for the proposed project is driven by FAA standards related to geometric airfield design, pavement condition, runway length, and approach protection.

<u>Geometric Airfield Design:</u> The FAA has prescribed geometric airfield design standards to promote safe aircraft ground operations. These standards should be implemented to safely accommodate the approach speeds and wingspans of the most demanding aircraft that use a runway on a regular basis. The current primary runway at Hartford Municipal Airport does not meet the design standard for lateral runway to taxiway separation associated with its most demanding aircraft. To provide the standard runway to taxiway separation, the primary runway, its parallel taxiway, or both must be relocated from their current locations. Providing this standard separation would result in enhanced safety of the operating environment and minimize the possibility of surface incidents between aircraft currently utilizing the airport.

<u>Pavement Condition:</u> An industry-standard pavement condition assessment report was completed for Hartford Municipal Airport in 2010. This report found that nearly every runway and parallel taxiway pavement section at the airport is in either "poor" or

"very poor" condition. The report recommended that the pavement sections be reconstructed within the next five years to avoid pavement failure.

Runway Length: The need for a particular runway length is based on specific environmental factors and aircraft performance requirements. The current primary runway at Hartford Municipal Airport is 3,000 feet long. Given the airport's climate and elevation above sea level, a 3,400-foot runway length is recommended to accommodate the most demanding aircraft using the airport on a regular basis. Providing a 3,400-foot runway would ensure that adequate runway length is available for takeoff and landing operations by aircraft currently utilizing the airport.

Approach Protection: The FAA has established several policies for the purpose of protecting aircraft, people, and property in the air and on the ground surrounding runways and taxiways. These policies establish recommended land use and object height controls for specific areas within typical approach and departure paths to airports. The proposed project would involve land and easement acquisitions associated with the recommendations of these policies."

Alternatives

The BOA considered five alternatives for this project. Alternative 3 is the preferred alternative and it has been previously described. The rejected alternatives are as follows.

No build: This alternative would not make the FAA required improvements to runway design and length, or pavement condition and strength.

Offset and extend Runway 11/29: This alternative would involve offsetting the runway to the north at the same 11/29 alignment so that the required distance between the runway and taxiway could be provided and extended to 3,400 feet. This alternative was rejected because it would require the closure of County Highway "U" and would disrupt traffic patterns of vehicles that use that road.

Construct new 3,400-foot Runway 8/26: This alternative is similar to the preferred alternative. It was rejected because it would require the relocation of several hangars.

Pave and extend Runway 18/36 to 3,400 feet: This alternative was rejected because it would be incompatible with existing residential and utility structures south of the airport.

III. AGRICULTURAL SETTING

Agriculture's contribution to the Washington County economy[4] is significant according to a 2011 report prepared by the University of Wisconsin-Extension. Researchers estimated that agriculture provides jobs for 3,506 people in Washington County, which represent about

[4] *Washington County Agriculture: Value and Economic Impact*, University of Wisconsin-Extension, Cooperative Extension, 2011, http://www.uwex.edu/ces/ag/wisag/

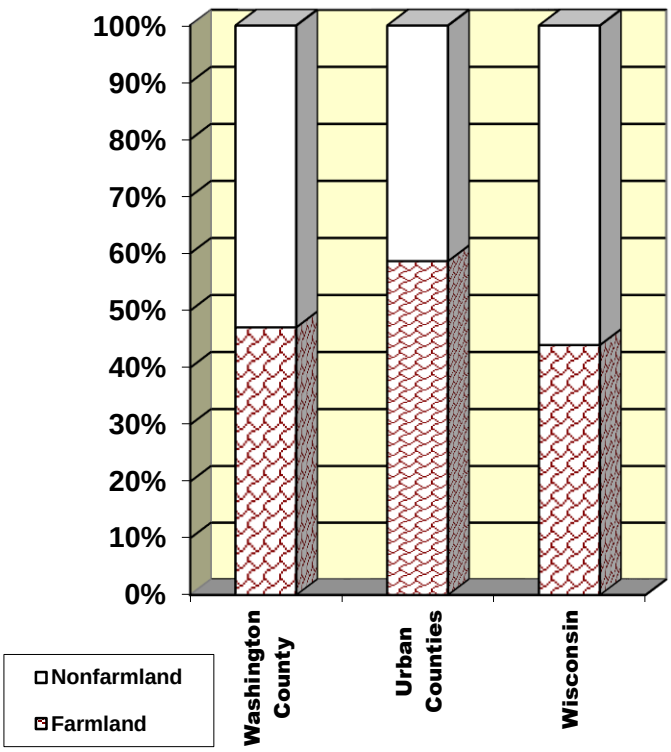
5 percent of the county's 66,166-member workforce. Agriculture accounts for $746 million in business sales or 8 percent of Washington County's total business sales. Every dollar of sales from agricultural products generates an additional $0.41 of business sales in other parts of Washington County's economy. Agriculture also contributes $218 million to county income, about 5 percent of Washington County's total income. Washington County agriculture pays almost $21 million in taxes. This does not include property taxes for local school districts.

Agricultural Productivity

In 2010,[5] Washington County ranked seventeenth out of Wisconsin's 72 counties in the production of winter wheat. In that same year, farmers in the county harvested 26,000 acres of corn for grain, 21,900 acres of soybeans, 13,800 acres of alfalfa hay, 7,000 acres of corn for silage, and 5,000 acres of winter wheat. They also raised 36,000 head of cattle and calves.

Fifteen years earlier, Washington County farmers harvested 35,500 acres of alfalfa hay, 31,200 acres of corn for grain, 9,400 acres of soybeans, 7,000 acres of corn for silage, and 3,700 acres of winter wheat. They also raised 41,000 head of cattle and calves.

Chart 1
Land in Farms, 2007



Land in Farms, Number of Farms, and Average Size of Farms

Washington County is classified as an urban county, which is defined as having an average of 100 or more residents per square mile. According to the *2007 Census of Agriculture*, Washington County has 129,790 acres of land in farms,[6] which represents 47.1 percent of the total land area in the county. The average for urban

[5] *Wisconsin 2011 Agricultural Statistics*, Wisconsin Agricultural Statistics Service, National Agricultural Statistics Service USDA, Wisconsin Department of Agriculture, Trade and Consumer Protection, August 2011, pp. 18 through 54.

[6] Land in farms consists primarily of agricultural land used for crops, pasture, or grazing. It also includes woodland and wasteland not actually under cultivation or used for pasture or grazing, providing it was part of the farm operator's total operation.

counties is 196,635 acres of land in farms or 58.7 percent of the total county land area. These can be compared to the average of 213,955 acres or 44.0 percent of land in farms among all Wisconsin counties. Refer to Chart 1 for a graphic comparison of the percentage of land in farms in Washington County, urban counties, and Wisconsin.

According to the *Census of Agriculture*, Washington County lost 18 farms (a 2.1 percent decrease) between 1992 and 2007 as the total number fell from 849 to 831. Wisconsin as a whole gained 10,504 farms (a 15.5 percent increase) as the total number of farms in the state rose from 67,959 to 78,463. The amount of land in farms decreased from 147,207 to 129,790 acres (an 11.8 percent decrease) in Washington County and in Wisconsin as a whole, the amount of land in farms declined from 15.5 to 15.2 million acres (a 1.8 percent loss) during this fifteen-year period. The average size of farms decreased from 173 to 156 acres in Washington County and from 228 to 194 acres in Wisconsin as a whole during the same period.

Size Distribution of Farms[7]

Table 1 shows the percentage of farms in each size category for Washington County, rural counties, and all Wisconsin counties. Proportionately, Washington County has more farms that are smaller than 180 acres in size compared to the averages for urban counties and proportionately more farms that are smaller than 50 acres in size compared to the averages for all Wisconsin counties.

Table 1
Percent of Farms per Size Category

Acres per Farm	% of Washington County Farms	% of Urban County Farms	% of all Wisconsin Farms
0-49	43.3%	41.0%	31.6%
50-179	33.6%	33.0%	37.9%
180-500	16.1%	18.4%	22.7%
More than 500	7.0%	7.6%	7.8%

Property Taxes and Values

Table 2 lists the average property tax, assessed value, and sale price per acre of agricultural land in Washington County, urban counties, and all Wisconsin counties. The assessed values and property taxes are based on the "use value" of agricultural land. Wisconsin Statutes define agricultural land as "land, exclusive of buildings and improvements, that is devoted primarily to agricultural use." In 2010/11, average property taxes[8] on Washington County agricultural land were 9.3 percent lower than the average for urban counties and 0.9 percent higher than the average for all counties.

[7] *2007 Census of Agriculture*, U.S. Department of Agriculture, Wisconsin Agricultural Statistics Service, 2009.

[8] Wisconsin Department of Revenue, Division of Research and Policy, Sales and Property Tax Policy Team.

Table 2
Farmland Taxes and Values

	2010/2011 Dollars per Acre of Farmland		
	Average Tax	**Assessed Value**	**Sale Value**
Washington County	$3.41	$236	$8,343
Urban Counties	3.76	221	5,901
All Counties	3.38	188	4,028

On average, the assessed value[9] of farmland in Washington County was 6.8 percent higher than the average for all urban counties and 25.5 percent higher than the average for all Wisconsin counties.

The average sale price[10] of farmland in Washington County was 41.4 percent higher than the average for urban counties and 107.1 percent higher than the average for all counties. These values do not include land sold and converted to nonfarm use.

Soils

The soils on the proposed acquisition west of the existing airport property will include Theresa silt loam with 6 to 12 percent slopes-eroded, Lamartine silt loam with 1 to 3 percent slopes, and Radford loam with 0 to 3 percent slopes. East of the existing airport, the soils on the affected land include Theresa silt loam with 0 to 2 percent slopes, 2 to 6 percent slopes, and 6 to 12 percent slopes-eroded, and Mayville silt loam with 2 to 6 percent slopes.[11]

Lamartine silt loam with 1 to 3 percent slopes formed in 20 to 36 inches of loess over calcareous loamy till. It is found in the lowlands and it is somewhat poorly drained. It can hold about 9 inches of water available for plants between the surface and a depth of 5 feet. Permeability is moderate, internal drainage is medium, and natural fertility is moderate. It has a seasonal high water table. Where drained, this soil is suited to all of the crops commonly grown in the county. It is classified as prime farmland where drained and it is included in capability class IIw-2. Refer to Appendix II for a definition of prime farmland and Appendix III for descriptions of capability units.

Mayville silt loam with 2 to 6 percent slopes formed over 20 to 36 inches of silt over calcareous loamy till. It is moderately well drained and found on uplands. It can hold 9 inches of water available to plants between the surface and a depth of 5 feet. Permeability is moderate, internal drainage is medium, and natural fertility is moderate. It is susceptible to erosion. This soil is classified as prime farmland and it is included in capability class IIe-1.

[9] Ibid.

[10] *Wisconsin 2011 Agricultural Statistics*, Wisconsin Agricultural Statistics Service, National Agricultural Statistics Service USDA, Wisconsin Department of Agriculture, Trade and Consumer Protection, August 20aa, pp. 10 and 11.

[11] *Soil Survey of Washington County*, USDA Soil Conservation Service in cooperation with the University of Wisconsin, Wisconsin Geological and Natural History Survey, Soils Department, and the Wisconsin Agricultural Experiment Station, June 1971, sheets 37, pp. 76-91.

Radford loam with 0 to 3 percent slopes formed in silty colluvium more than 20 inches thick over older somewhat poorly drained to poorly drained mineral soils. It is found in drainageways. It can hold about 11 inches of water available to plants between the surface and a depth of 5 feet. Permeability is moderately slow, internal drainage is slow, and natural fertility is high. Where drained, this soil is well suited to all of the crops commonly grown in the county. It is classified as prime farmland where drained and it is included in capability class IIw-2.

Theresa silt loam formed in 12 to 20 inches of loess over calcareous gravelly loamy till. It is well drained and found on uplands. It can hold about 10 inches of water available to plants between the surface and a depth of 5 feet. Permeability is moderate, internal drainage is medium, and natural fertility is moderate. Where the slopes are 0 to 2 percent, this soil has few limitations for growing crops. It is classified as prime farmland and it is included in capability class I-1. Where the slopes are 2 to 6 percent, this soil is susceptible to erosion and it has moderate limitations if intensively cultivated. It is classified as prime farmland and it is included in capability class IIe-1. This soil is susceptible to further erosion where the slopes are 6 to 12 percent slopes-eroded. It is included in capability class IIIe-1.

Farmland Preservation

The Washington County Farmland Preservation Plan was certified in 1981. The plan identifies farmland preservation areas in the county and provides tax credit eligibility to farmers who wish to participate in the Farmland Preservation program. The state of Wisconsin is currently transitioning from the old Farmland Preservation Program to the Working Lands Initiative that was included in the 2009/2011 state budget. As part of the transition, all 70 counties with Farmland Preservation Plans are required to update those plans within the next few years. The new initiative increases tax credits for farmland owners whose land is in the program.

The town of Hartford has adopted its own exclusive agricultural zoning ordinance. Under the Working Lands Initiative, landowners can receive $7.50 per acre in tax credits on land zoned for exclusive agricultural use. Some of the affected farmland is zoned for exclusive agricultural use.

The loss of any farmland enrolled in the federal government's various commodity programs could affect a farmer's base acreage resulting in lower revenue from these programs.

IV. AGRICULTURAL IMPACTS

An Agricultural Impact Statement (AIS) is required by law when more than 5 acres from any farm operation will be acquired for a public project. Thirty days after the publication date of the AIS, the purchasing agency may begin negotiating with the affected farmland owners.

The proposed acquisitions of farmland are listed in the table below.

Table 3
Proposed Acquisitions

Farmland Owners	Acres to be Acquired	
	Fee-simple	Avigation Easement
John & Laura Novak	21.1	4.5
Paul J. & Dana Osmanski	7.7	1.6
Marie Rettler	4.7	1.2
James A. Borlen	16.5	3.4
TOTALS	50.0	10.7

The following is a description of the impacts on each of the four farmland owners and their concerns about the project.

Farm Owners/Operators: John and Laura Novak
Proposed Acquisition: Fee-simple acquisition of 20.4 acres and the acquisition of 4.5 acres of avigation easement

The BOA is proposing to purchase 0.7 of an acre in fee-simple and 1.3 acres of avigation easement on the Novak property west of County Highway "U." All of the land acquired in fee-simple will be leased back for crops. The BOA will also purchase 20.4 acres in fee-simple and 3.2 acres of avigation easement from the Novaks' property northeast of the existing airport. BOA officials have indicated that 12.7 acres of the fee-simple purchase will be permanently converted to airport use. The remaining 7.7 acres will be leased back for crop production.

The Novaks own about 450 acres of land including 300 acres of cropland, which they use to grow corn, wheat, and hay. They also run a 70-cow dairy operation with 80 additional head of cattle. The affected land is zoned for exclusive agricultural use.

There is a drainageway on the affected property.

Mr. Novak indicated that his primary concern about the proposed project is the loss of farmland. He said that he doesn't have enough cropland to grow the feed he needs now. So, any reduction would make this problem worse. He would like the BOA to consider trading land.

Farmland Owners: Paul J. and Dana Osmanski
Operator: Rick Rhode
Proposed Acquisitions: Fee-simple acquisition of 7.7 acres and the acquisition of 1.6 acres of avigation easement

Of the land that will be acquired in fee-simple, 7.1 acres will be leased back for cropland and 0.6 of an acre will be permanently removed from agricultural use.

The Osmanskis raise chickens and ducks on their farm and rent their cropland out to Mr. Rhode. Mrs. Osmanski indicated that the proposed acquisition of land will include woodland where they occasionally cut firewood.

Ms. Osmanski said that she and her husband support the proposed project. They are involved in aviation and they use the airport themselves. However, the loss of property will mean a loss of income for them.

Farmland Owner: Marie Rettler (Jeff Becker, contact)
Proposed Acquisition: Fee-simple acquisition of 4.7 acres and the acquisition of 1.2 acres of avigation easement

All 4.7 acres of land to be acquired in fee-simple will be leased back for crop production.

The Rettler farm is about 100 acres in size including 90 acres of cropland that is rented out. The remaining 10 acres consist of woodland and land for the buildings.

Mr. Becker is concerned that the loss of land might limit the potential future uses of this property, which could limit its appeal to potential buyers of the property if the owner decides to sell.

Mr. Becker indicated that line fencing exists between the Rettler property and the adjacent property. He is would like to see that fencing will be maintained. He would also like the BOA to consider a long-term lease of this property rather than the fee-simple purchase.

Farm Owner/Operator: James A. Borlen
Proposed Acquisition: Fee-simple acquisition of 16.5 acres and the acquisition of 3.4 acres of avigation easement

BOA officials have indicated that 6.7 acres of the fee-simple acquisition will be permanently converted to airport use.

Mr. Borlen farms a total of 137 acres of cropland, including land he used to own that was previously purchased by the airport. He grows corn and alfalfa, and occasionally grows soybeans and winter wheat. Mr. Borlen also runs a 40-cow dairy operation and has 25 head of beef cattle. His land is zoned for exclusive agricultural use.

Mr. Borlen is concerned about the loss of farmland and the control that the BOA will have over the land that will be covered by the avigation easement. He would prefer to have the land purchased in fee-simple rather than acquired as an avigation easement. Then, he could rent this cropland rather than own property over which the city controls the air space. If the city owns an easement, he is concerned that in the future they may expand their control over this parcel. This would negatively affect his ability to plan for the future and make business decisions about his farm operation. He is also concerned that the Runway Protection Area identified on the project sketch will mean the further loss of his farmland in the future.

The BOA is limited to the acquisition of minimum taking for this project. Any deviations would be determined during negotiations between Mr. Borlen and the BOA. The avigation easement was identified for the specific acreage because that is the minimum amount of control that the BOA would need for that parcel according to FAA regulations.

There is a drainage ditch on the Borlen property that will run under the new runway via a culvert.

Mr. Borlen is concerned that the existing airport land under Runway 11/29 that is proposed to be recovered for farmland is

severely compacted and may not be suitable for farming. He is also concerned that there may be stones under the runway that were used as a base.

Restrictions on Land Use

BOA officials have indicated that none of the proposed acquisitions will affect existing buildings or change access to the remaining property adjacent to the airport. The proposed avigation easements would establish height restrictions that would be identified in covenants in each individual easement. Crop production would likely still be permitted on land covered by an avigation easement. On land that has been acquired in fee-simple that would be leased for farming, farmers would be discouraged from growing crops that attract wildlife such as corn and wheat. Crops that would be permitted include, but are not limited to, hay, soybeans, tobacco, and mint.

The city and/or county may also adopt an airport zoning ordinance that would limit land uses and structure heights for areas outside the proposed fee-simple and easement acquisitions.

In addition to land acquired from private property owners, 8.5 acres of existing airport property that is now leased out for farming is proposed to be permanently converted to airport use. However, 22.5 acres of existing airport land may become available for lease as cropland because of the relocation of the airport's primary runway. This land may be compacted because of airport use and may take several years of freezing, thawing, and cultivation before it would produce similar crop yields to the adjacent farmland.

Drainage

The proposed project is not located within any drainage districts. However, it is about ¼ mile south of the Hartford-Addison Drainage District.

The BOA has indicated that there is a drainage ditch on the eastern end of the realigned primary runway. The ditch runs from north to south through the Novak and Borlen properties before entering existing airport property. This ditch typically only has flowing water during extreme storm events. It drains very quickly due to the very steep slopes in the area. The ditch is proposed to be channeled through a culvert beneath the realigned Runway 9/27 and its parallel taxiway. This ditch is not part of the Hartford-Addison Drainage District.

Trees

There are several tree lines that would be removed as part of the proposed project, totaling about 1.6 acres. These trees are within the approach to the realigned Runway 27 on the east side of the airport. There may be fencing within these tree lines that would need to be replaced elsewhere.

Fencing

Compensation for the fencing within the acquisition site would be included in the appraisal. If fencing or other improvements are damaged outside of the acquired land, the owner could receive damages, or the

improvement would be restored, repaired, or replaced to a condition similar or equal to that existing before the damage was done.

Restoration of Existing Airport Land to Cropland

The BOA is proposing to remove the existing Runway 11/29. A portion of the land under the eastern end of the runway could be leased for farming. However, restoration would be needed to make this land suitable for growing crops. Even after the runway pavement and base are removed, the underlying soils will likely be severely compacted.

Compaction is a reduction in the air and water pore space between soil particles. Increased compaction reduces the air and water flow to plant roots. Root systems in compacted soils may not develop fully due to inadequate moisture. Insufficient moisture and retarded root systems are correlated with yield losses. The degree to which crop yields are reduced by soil compaction varies mainly with the crop grown and the character of the soil.

To fully restore the soils under Runway 11/29, the subsoils would need to be decompacted, large rocks would need to be removed, and topsoil would need to be spread over the area to provide suitable conditions for crop production.

The BOA has not yet developed a plan to restore this land for farming because the proposed project is still undergoing environmental review.

Appraisal Process

The BOA would provide an appraisal of the affected property to the landowners. This would be the basis for their offer. The landowners have the right to obtain their own appraisal of their property. They would be compensated for the cost of this appraisal if the following conditions are met.

1. The appraisal must be submitted to the BOA within 60 days after the landowner receives the BOA's appraisal.

2. The appraisal fee must be reasonable.

3. The appraisal must be complete and conducted by a Wisconsin Certified General Appraiser.

The amount of compensation would be based on these appraisals and would be established during the negotiation process between the BOA and the individual landowners. An appraisal is an estimate of fair market value. The BOA is required to provide landowners with information about their rights in this process before negotiations begin.[12]

V. RECOMMENDATIONS

The DATCP recommends the following as ways to mitigate the potential adverse impacts associated with the proposed project:

[12]For more information, contact the Relocation Unit, Bureau of Planning & Technical Assistance, Wisconsin Department of Administration, P.O. Box 7868, Madison, WI 53707, or call (608) 267-0317.

1. DATCP supports the BOA's proposal to lease back any newly acquired cropland that is not needed for construction.

2. If any of the land under Runway 11/29 is leased for farming, farmers should take into consideration its potential limitations for crop production even if it has been restored.

3. During the design phase of the project, the county conservationists should be consulted to ensure that construction proceeds in a manner that minimizes drainage problems, crop damage, soil compaction, and soil erosion on adjacent farmland.

4. Farmland owners and operators should be given advanced notice of acquisition and construction schedules so that farm activities can be adjusted accordingly. To the extent feasible, the timing of the acquisition and construction should be coordinated with them to minimize crop damage and disruption of farm operations.