FINAL ENVIRONMENTAL ASSESSMENT

FOR

PROPOSED AIRPORT DEVELOPMENT

at

Morey Airport
Middleton, Wisconsin
Prepared by

URS Corporation
5250 East Terrace Drive
Madison, Wisconsin 53718

September, 2001

Under contract with

WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF AERONAUTICS

Work includes recommendations of the Airport Layout Plan Update

Relocate and extend the primary runway to 4,000 feet including a parallel taxiway and improved navigational lighting; develop new terminal facilities, paved aircraft parking apron, and expand the general aviation and corporate hangar areas.

Evidence of compliance with the Wisconsin Environmental Policy Act is indicated by the Wisconsin Department of Transportation signature below.

_____ _____
WisDOT, Director Date
Bureau of Environment

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Patricia M Turner for
WisDOT, Director
Bureau of Environment

14 November 2001
Date

WisDOT, Director
Bureau of Aeronautics

11-13-01
Date

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1.1 PROPOSED FEDERAL ACTION

The City of Middleton is requesting Federal and State environmental approval for the development of a paved runway of approximately 4,000 feet in length, 100 feet in width, and a pavement strength of 12,500 pounds (single wheel loading) and an associated parallel taxiway. Additional facilities include a medium intensity lighting system with runway alignment, precision approach path indicators, FBO maintenance hangar, executive and T-hangars, aircraft parking apron, a terminal/administrative building and other associated facilities. In consideration of these improvements, the City is also requesting approval for the acquisition of adjacent agricultural land through a combination of avigation easements and fee simple acquisition.

This environmental assessment document has been prepared pursuant to the requirements of Section 102(2)(c) of the *National Environmental Policy Act (NEPA) of 1969* (PL 91-90. 42 USC 4321 et. seq.) and Title V of the *Airport and Airway Improvement Act of 1982*, as amended. The format and subject matter included within this report conform to the requirements and standards set forth by the Federal Aviation Administration (FAA) as contained principally in *Order 5050.4A, Airport Environmental Handbook*, but also address appropriate items in *Order 1050.1D, Policies and Procedures for Considering Environmental Impacts*. The FAA and the Wisconsin Department of Transportation, Bureau of Aeronautics (WDOT,BOA), are serving as the Lead Agencies for this environmental process.

The text surrounded by gray shading, located throughout this document, reflects modifications made since the Preliminary Environmental Assessment.

1.2 PROPOSED ACTION

The proposed action is intended to accommodate both existing and future demand for the use of Morey Airport by general aviation aircraft. Proposed improvements include a new runway of sufficient length and width, a parallel taxiway, upgraded navigational aids such as medium intensity runway lighting, precision approach path indicators (PAPIs) and runway end identifier lights (REILs), and an improved terminal area with support facilities such as a paved aircraft parking apron, hangars, fuel storage, an FBO/administration building, and automobile parking. Estimated costs for the proposed project, including land acquisition and facilities development, are approximately $6,020,000.

1.3 PROJECT LOCATION AND DESCRIPTION

Morey Airport is located within the corporate limits of the City of Middleton, Dane County, Wisconsin, and is situated in close proximity to the City of Madison (Exhibits 1 and 2). Access to the airport is from Airport Road, a portion of which was recently improved to a four lane road. The remaining portion of Airport Road is scheduled to be improved to four-lanes past the Airport in 2002 and possibly 2003. The airport currently consists of a paved primary runway with a SE/NW orientation (Runway 12/30), grassed N/S (Runway 18/36) and E/W (Runway 9/27) side runways, terminal/hangar buildings and various other support facilities located on 140 acres of land (Exhibit 3).

This Environmental Assessment will address the potential environmental impacts of proposed improvements to the airport to accommodate current and projected growth and transportation needs, and to meet FAA safety guidelines.

Morey Airport was founded in 1942, and is listed as a General Utility Airport in both the Wisconsin State Airport Systems Plan (SASP) and the National Plan of Integrated Airport Systems (NPIAS). It serves the general aviation needs of Middleton and the western portions of the City of Madison and was a privately owned facility until 1998, when purchased by the City of Middleton. Changes to the original facility have been minimal to date.

1.4 PURPOSE AND NEED

1.4.1 Purpose

Currently, Morey Airport does not meet FAA minimum safety guidelines and the associated facilities are substandard. The runway is of insufficient length and width for a General Utility Airport; FAA required runway safety areas are not provided, there is no parallel taxiway, and existing lighting aids consist of substandard low intensity runway lights. In addition, the aircraft parking apron is comprised of gravel, which can damage planes and cause injury to people; the terminal area does not comply with Americans with Disabilities Act (ADA) requirements; hangar space is insufficient to accommodate the existing and projected number of based aircraft, and automobile parking space is inadequate. The purpose of the Proposed Action is to improve safety of the airfield through application of FAA minimum safety guidelines, accommodate both existing and projected demand for the use of Morey Airport by general aviation aircraft through expansion of the runway, apron parking and hangar space, and to provide modern facilities for aircraft pilots and passengers that use the airport.

1.4.2 Need

Typically, the single most important reason for a public entity to own and operate an airport is its economic value to the community. The primary benefit is the value of the airport to the sales and production capabilities of local business and industry. General aviation is a timesaving tool for corporate travel and many companies consider accessibility to a viable general aviation airport as a part of their criteria when considering new locations. In addition, airport users can be expected to patronize local business.

Economic development within the area has placed a growing demand on the Morey Airport facilities. However, due to current facility deficiencies the airport is unable to adequately and safely accommodate existing and additional aircraft. As a result, the number of on-site based aircraft and operations would likely remain stable. Conversely, projected growth of based aircraft, enplanements of passengers commencing their trip from the airport, and total departure and aircraft landing operations are projected to increase 2%-3% annually through the year 2010 provided the proposed improvements are implemented. These demand projections are based on the Airport Layout Plan (ALP) completed in 1992 (Ralph Burke Associates, 1992) and updated in 2001 (URS, 2001) and on FAA regional air traffic forecasts (updated in 1995), past airport growth trends, local and regional socio-economic factors and professional judgement.

In order to provide a safe airport with the necessary facilities to accommodate existing and future demands, the proposed improvements are needed. The need for the proposed improvements is further described in the following sections.

1.4.3 Safety

Runway/Taxiway

The primary runway (Runway 12/30) length presently available at Morey Airport is 2,971 feet. There are three multi-engine aircraft based at the Airport and the proposed increased runway length and width would provide the required safety margins for twin-engine aircraft that currently can not use the existing facility. If current FAA standards were applied to the existing runway the available length would only be 1775 feet. This length is unacceptable for a General Utility Airport. In order to accommodate current and expected aircraft, a runway length of approximately 4,000 feet is being proposed in addition to requisite runway safety areas, clear zones, lighting and a parallel 35-foot wide paved taxiway (240 feet from runway centerline to taxiway centerline). This taxiway separation is necessary to accommodate the airport's critical design aircraft and a parallel taxiway will eliminate the need for aircraft to back taxi on the runway.

There is no demand or justification to accommodate commercial service aircraft at Morey Airport now or in the foreseeable future. To serve the aircraft that are expected to regularly use the airport, all pavements including runways, taxiways, and aprons, should be designed to comply with FAA minimum standards for a general utility airport.

The selection of appropriate design standards for the development of airfield facilities is based primarily upon the characteristics of the aircraft that are expected to use the airport. The most critical characteristics are the approach speed and the wingspan of the *critical design aircraft* (the most demanding category of aircraft that makes 500 or more annual operations at the airport per year). An *operation* is defined as one takeoff or one landing. *FAA Advisory Circular 150/300-13 CHG 5* identifies a coding system which is used to relate airport design criteria to operational and physical characteristics of the aircraft intended to operate at the airport. This code referred to as the Airport Reference Code (ARC) has two components. The first component, depicted by letter, is the aircraft approach category and the second, depicted by a Roman numeral, is the airplane design group.

Common piston engine aircraft based at Morey Airport, as well as their approach speed, wingspan, ARC and maximum takeoff weight are summarized in Table 1A (located in Appendix A). These aircraft are the primary users of the airfield facilities. The current critical aircraft using the airport is a Cessna 340, which has an approach speed of 94 knots, a wingspan of 38.08 feet, a maximum takeoff weight of 5,990 lbs. and an ARC of B-I (approach speed between 91 knots and 121 knots, and a wingspan up to 49 feet). Aircraft likely to use this facility in the future fall into the ARC B-II (approach speed between 91 knots and 121 knots, and a wingspan between 49 feet and 79 feet) categories and smaller. Based on the Airport Layout Plan Update and conversations with airport management, there is interest in basing a Cessna Citation II should the airport be improved. This would then become the critical aircraft, which has an approach speed of 108 knots, a wingspan of 51.70 feet, a maximum takeoff weight of 13,300 lbs., and an ARC of B-II. To best accommodate current and future use, the runway will be

designed to comply with FAA minimum standards and accommodate the future critical aircraft. The existing runway of 2,971 feet, is of insufficient length and width, contains no parallel taxiway and is not in compliance with FAA minimum safety guidelines.

Additional criteria were evaluated in order to determine an appropriate runway length. Morey Airport is listed in the SASP and the NPIAS as a General Utility airport and both plans recommend that General Utility airports be able to accommodate 100% of the small aircraft (less than 12,500 pounds) that use the airport. In addition, it is recommended that FAA's design curve take into account the critical aircraft's flap setting and operating weight, and the airport's elevation, temperature/hottest month, wind velocity and runway surface conditions. Based on this information, the FAA design curve for Morey Airpot recommends a runway length of 3,900 feet.

Another means of determining runway length requirements is based on the Accelerate/Stop (A/S) distance for critical aircraft. An A/S distance is basically the length of runway required for a pilot to bring the aircraft up to an elevation 35 feet above the runway after take-off, recognize a potential problem, such as engine failure, and then land the aircraft bringing it to a stop. According to *Air Progressive Magazine*, the A/S for the current critical aircraft at Morey Airport (C-310 and C-340) is 4,300 feet and 3,900 feet respectively. The A/S for the future critical aircraft (Citation II) is 4,000 feet.

Based on the various criteria evaluated a runway length of 4,000 feet was selected in order to safely accommodate current and projected critical aircraft.

1.4.4 Navigational Aids and Lighting

The types of lighting and navigational aids available at an airport play an important role in the use of the facility and vary in sophistication. The degree of sophistication relates to the information provided to approaching aircraft.

At a General Aviation airport such as Morey Airport, non-precision approach aids can provide necessary access to the airport in reduced visibility and ceiling conditions. To aid the pilot during approach to the airport, medium intensity lighting, PAPIs and REILs are recommended for each end of the paved runway.

The existing lighting aids at Morey Airport consist of low intensity runway lighting. This form of lighting is substandard for General Utility Airports with an instrument approach.

The runway marking and lighting requirements depend on the navigational facilities available for a particular runway. In anticipation of additional non-precision approach procedures, the runway will be marked appropriately. Medium intensity runway lights (MIRLs) need to be installed along the length of the paved runway to meet the requirements for any non-precision approach. In addition, all taxiways should have medium intensity taxiway lights (MITLs) or reflectors.

1.4.5 Aviation Demand/Terminal Facilities

Aviation demand at an airport is typically defined by the number and type of based aircraft and by the number and type of operations. Aircraft based at Morey Airport currently include 39 general aviation aircraft. A breakdown of the current aircraft fleet mix is included in Appendix

A (Table 1A). Forecasts of aviation activity were generated using historical airport-related data provided in the SASP 2020, 1992 Airport Master Plan, the FAA and discussions with the Airport owner/manager. Past growth trends of various aviation demand elements and potential socio-economic factors were also reviewed. Where forecast information was not available, historic trends were projected into the future using a variety of statistical techniques. A degree of professional judgement is also used to determine whether or not these projections can be deemed a reasonable forecast of the future behavior of a given aviation demand element in question. According to the ALP update the projected fleet mix is anticipated to consist of more personal and business aircraft. The forecast of aircraft operations is presented in Appendix A (Table 1B).

Aircraft Parking Apron

The existing parking apron for itinerant and locally based aircraft is comprised of gravel and turf, and is not of an adequate size for existing and projected aircraft use. Aircraft parked in this area are not accessible during certain periods due to the lack of a hard surface caused by standing water or saturated conditions. In addition, turbulence caused by aircraft when started and/or taxiing can cause the gravel to become dislodged and projected, thereby creating the potential for injury to people and damage to aircraft.

The aircraft apron serves as a parking area for locally based aircraft and for itinerant aircraft. The itinerant apron should be in an area adjacent to the administration building or the Fixed Base Operator (FBO) facility. In determining the area to devote to the parking of itinerant aircraft, FAA planning criterion is 360 square yards of paved apron for each itinerant tie-down space. To determine the number of tie-down spaces required, a maximum of 50% of the itinerant aircraft are assumed to be on the apron at one time during a busy day. This method is typically used in planning studies. Based on this methodology, approximately 97,900 square feet or an apron of approximately 310 feet by 310 feet of parking apron will be required for itinerant aircraft.

The area required for locally based aircraft should be enough to accommodate all based aircraft that are not stored in hangars. According to FAA planning guidelines, 300 square yards of pavement should be available for each based aircraft tie-down. Based on this guideline, and using the forecast levels of based use, 11,700 square feet or an apron of approximately 110 feet by 110 feet will be required.

General Aviation Terminal Area

The existing terminal area at Morey Airport does not comply with FAA minimum criteria and Americans with Disabilities Act (ADA) requirements (see Section 3.2.3).

The requirements for administration area development have been determined for general aviation facilities. FAA *Advisory Circular 150/5300-13 CHG 5, Airport Design*, recommends minimum facilities for terminal area development. The facility requirements have been outlined for hangars, fuel storage, FBO/administration building, and automobile parking and access.

<u>Hangars</u>

The need for hangar space was estimated by using demand forecasts and evaluating results from a recent survey of 212 pilots (March, 2001) that currently or potentially would use Morey

Airport. These demands will be satisfied with the construction of hangars to accommodate approximately 50 to 60 aircraft of various makes and models (approximately 25,840 square feet).

Fuel Facilities.

The majority of aircraft utilizing Morey Airport require Av-gas 100LL aviation fuel. The Airport currently has a 10,000-gallon, double-walled above ground tank. The fuel storage requirements will depend primarily on the management and fixed based operator arrangements made prior to airport re-development. Jet "A" fuel for turbo props and possibly small personal jets may be needed as use of the facility expands.

FBO and Administration Buildings

The existing aircraft maintenance facility is outdated. A new facility would provide proper ventilation, work space, storage space, and proper containment of maintenance related chemicals. A new administration/terminal building would be useful to both airport management and airport users. This facility should provide a waiting area, administrative and management offices, pilot's lounge and flight planning area, food service facilities, public rest rooms, and various other uses, and comply with Americans with Disabilities Act (ADA) requirements.

Automobile Parking and Access

The need for public automobile parking depends on the operational level and type of activity associated with the airport. Projected automobile parking has been determined from an analysis of the number of pilots and passengers expected to use the airport during peak hours. The parking area is projected to be approximately 50 spaces or approximately 12,600 square feet.

Access to the airport and associated facilities should provide a convenient and easy passage. With construction of the terminal area to the south of the primary paved runway, convenient and easy access can be provided with an entrance road from the terminal area directly to Airport Road.

Land Acquisition

The existing airport site encompasses 140 acres. Additional land would need to be secured to provide for the runway realignment and extension, and for proper runway protection zones. The City of Middleton currently owns most of the land required for the proposed development. Three additional parcels have been identified for acquisition at the option of the landowners. These properties would be acquired to protect FAR Part 77 surfaces to a height of 50 feet. In addition, this acquisition would help limit adverse conditions brought about by the introduction of aircraft noise into an area that has not experienced it previously.

The proposed project will require the fee-simple acquisition of 11.5 acres of land from two farmland owners, 16.9 acres of clear zone easement from one farmland owner and 1.6 acres of avigation easement from one farmland owner. The City of Middleton already owns a 120-acre parcel from which 22.6 acres of farmland will be converted to airport use. Specifics of the proposed land acquisition are discussed in Section 4.16 *Farmland* and Appendix B (Agricultural Impact Statement).

1.4.6 Improvement Schedule

If the preferred alternative is selected, it is projected that land required for the proposed improvements would be acquired in 2001-2002. Design of the proposed improvements would also occur in 2001-2002, with construction activities beginning in summer 2002. The anticipated completion of proposed improvements would be Fall 2002.

2.1 ALTERNATIVES ANALYSIS

The objective of this analysis is to identify all feasible alternatives to accommodate the Proposed Action. Once identified, each alternative is evaluated in terms of its ability to satisfy the Purpose and Need of the Proposed Action and its potential for significant environmental impacts.

Council of Environmental Quality (CEQ) regulations for compliance with the *National Environmental Policy Act* (NEPA) *of 1969, as amended* specify that the range of alternatives considered provide a variety of ways to address and respond to primary public issues, management concerns, and resource opportunities associated with the proposed project. The following eight basic alternatives were identified to address proposed improvements to Morey Airport:

1. No Action
2. Extended Runway on a new East/West Alignment
3. Extended Runway on a new West-northwest/East-southeast Alignment
4. Extended Runway on a new Northwest/Southeast Alignment (an alignment located between Alternative 1 and 3)
5. Application of FAA Standards to Existing Airport
6. Alternative Modes of Transportation
7. Service From Other Airports
8. Develop a New Airport at Another Location

In accordance with the CEQ regulations, these alternatives were evaluated under a two-tiered process and classified accordingly. The first tier of evaluation considered whether or not each alternative satisfies the stated Purpose and Need, as well as the relative level of impact of each alternative, based on a preliminary environmental review. This preliminary review considered initial agency and public comments, environmental features in the area and information from the *Airport Layout Plan* prepared for Morey Airport in 1992. Alternatives that appear to satisfy the stated Purpose and Need and lack substantial environmental impacts following the first tier of review are classified as *Alternatives Under Consideration* (see Section 2.1.1).

Alternatives that, following initial review, did not meet the Purpose and Need and/or appeared to have problems with feasibility or environmental impacts were classified as *Alternatives Considered But Eliminated From Detailed Study* (see Section 2.1.2). As indicated in *FAA Order 5050.4A,* such eliminated alternatives are considered to be neither feasible nor prudent.

This initial evaluation of alternatives resulted in the consideration of Alternatives 1, 2, and 3 at a Public Informational Meeting held January 9, 2001. Three different configurations of landside facilities (described in next two sections, below) were developed and presented for Alternative 3, the preferred alignment. Based on comments from the public, Alternatives 2, 3B and 3D were eliminated from further analysis and Alternative 3F emerged as the favored alternative of those that had been developed at that point. However, aviators and airport staff expressed concern over the safety and functionality of landside facilities being separated by the turf crosswind runway in Alternative 3F. Alternative 3G was developed to address this concern. As detailed below,

Alternative 3G involves realignment of the turf crosswind runway to allow consolidation of landside facilities. As Alternative 3G was being developed, the results of a survey of airport users became available. Projections of demand for aircraft storage were developed from these results and applied to Alternative 3G. Alternative 3F was modified to include the same amount of storage as for 3G, and the original Alternative 3F was eliminated from further consideration. The next section describes in detail those alternatives currently under consideration.

2.1.1 Alternatives Under Consideration

Alternative 1: No Action

The No Action Alternative essentially involves maintaining the airport in its present condition without providing for improvements to the runway or landside facilities (Exhibit 3). In analyzing and comparing the various development alternatives, it is important to consider the benefits and consequences of maintaining the status quo.

The primary benefits of this alternative are low cost and lack of impacts to the surrounding environment. Development money would not be required, as existing features of the Airport would not be upgraded. Further impacts to site wetlands and the floodplain of Pheasant Branch Creek would not occur under this no development scenario. Additionally, acquisition or easements of adjacent land would not be required, and impacts to existing farmland would not occur.

The main consequences of this alternative are related to impacts on safety and the ability of the airport to accommodate existing and projected users. The primary drawback is that this alternative does not address the need for incorporation of modern design standards that can improve safety for airport users. There is a current need that justifies a runway length of 4,000 feet and an upgrade to meet other runway design standards. The maximum runway length available at Morey Airport is 2,971 feet. This runway does not meet current design standards for aircraft in the approach categories that currently use or are expected to use the airport. Individual aircraft owners using Morey Airport for personal travel and recreation, corporate owners using the facilities for business travel, and individuals using the facilities for flight training purposes and medical flights are among those currently most affected by the substandard facilities.

The No Action Alternative is not considered the preferred alternative because it does not meet the project Purpose and Need. This alternative limits the airport's utility in serving existing and future aviation demands within the region and is, therefore, neither feasible nor prudent. While the No-Build Alternative does not meet the purpose and need for this project, it does serve as a baseline for a comparison of impacts related to the Preferred Alternative.

Alternative 3: Reorient and Extend the Runway West-northwest/East-southeast

This alternative provides for a 4,000-foot by 100-foot runway with a 35-foot wide paved parallel taxiway reoriented in a west-northwest/east-southeast fashion (Exhibits 4 and 5). This alternative is designed to meet FAA requirements for a General Utility Stage II Airport. Improved landside facilities would include storage for 50 to 60 aircraft in a combination of T-

hangars and corporate hangar buildings, a new terminal building, a new Fixed Base Operator (FBO) facility and a paved apron.

The proposed orientation of the runway under this alternative provides for the safest runway alignment. Vertical clearance adequate to accommodate 34:1 approaches can be attained on both ends of the runway with this alignment. Flight patterns over the City of Middleton, the new residential development west of the airport, and Sunset Ridge Middle School would be similar to the existing flight patterns. Further, there would be less obstruction to approaching and departing aircraft by the hills located east-northeast, west and northwest of the airport under this alternative. This design will be able to accommodate aircraft with single wheel loads up to 12,500 pounds and improvements would be eligible for 80 percent State and Federal funding.

Under this proposed runway alignment, site wetlands and the Pheasant Branch Creek floodplain would be impacted and would require compensatory mitigation to offset negative impacts. Pheasant Branch Creek would need to be culverted under the proposed runway and taxiway; in addition, a short portion of the creek will be re-aligned to minimize the length of the stream in the object free area. The Sportsmen's Club would also need to be relocated, and additional lands would be acquired or placed under easement.

Several layout options of landside facilities were examined as separate alternatives for this runway orientation. Those options currently under consideration are described below.

- **Alternative 3F-Modified.** This alternative is the same as that which was presented as Alternative 3F at the public information meeting, with the exception of minor modification to reflect revised projections of aircraft storage demand (Exhibit 4). This alternative provides for a new terminal, paved apron and FBO facilities on the east side of the turf crosswind runway. The hangar facilities would be located between Pheasant Branch Creek and the turf crosswind runway (on the opposite side of the turf runway from the terminal), with space available for additional aircraft storage in the future. During the public informational meeting, although many aviators favored this orientation and arrangement of hangars, they indicated that separation of the hangars from the terminal/apron area was undesirable. However, this is the only way to accommodate the necessary landside facilities without relocating the turf crosswind runway or constructing the facilities north of the runway.
- **Alternative 3G** involves relocating the turf crosswind runway (Runway 18/36) to allow all landside facilities to be grouped together on the south side of Runway 12/30 (Exhibit 5). This alternative also allows for the construction of additional hangars in the future, if necessary. This alternate layout of the landside facilities was adopted after the public informational meeting in response to the numerous pilots who indicated their preference to have the hangars in close proximity to the terminal/apron area.

Alternative 3G is proposed as the Preferred Alternative because it:

- is the safest runway alignment that also preserves developable land to the west (Quisling property);
- maintains flight patterns over the City that are similar to existing conditions;
- permits grouping of landside facilities in one location;
- is compatible with the City's goal of separating urban development from farmland,

- allows for a stormwater detention/infiltration area to be developed north of the proposed runway where infiltration capacity of the soils is greatest.

Alternative 3F-Modified is not a prudent choice because it necessitates impractical separation of aircraft storage from the terminal area. The No-Action alternative (Alternative 1) does not meet the project Purpose and Need.

2.1.2 Alternatives Considered but Eliminated from Detailed Study

Alternative 2: Reorient and Extend the Runway East/West

This alternative includes a 4,000-foot by 100-foot runway with a paved 35-foot wide parallel taxiway aligned parallel to Airport Road. Conformance with FAA standards and associated landside facilities would be similar to the basic features described under Alternative 3 (see Section 2.1.1).

Although Alternative 2 provides for the most efficient runway design and construction from an engineering standpoint, it was eliminated from detailed study for a number of reasons. Concerns related to this alternative include the amount of area that would be required from the adjacent Quisling Property (to the west) that is planned for other uses, and the lack of ability to achieve a 34:1 approach on the east runway end due to a nearby forested hill. Additionally, the change in flight patterns over the City of Middleton, potential noise impacts to the existing and planned residential development west of the airport, the perceived flight pattern over Sunset Ridge Middle School (2.3 miles to the west), and the proximity of the Sportsmen's Club (a shooting range) to the east are concerns that have been raised. This alternative also limits the potential for future expansion of landside facilities between Airport Road and the runway, should the need arise.

Alternative 3: Reorient and Extend the Runway West-northwest/East-southeast

This alignment and its basic facilities were described in Section 2.1.1, above. Alternatives 3B, 3D and 3F represent related options that have been eliminated from further consideration.

- **Alternative 3B** provides for all landside facilities to be reconstructed north of the proposed runway and east of the turf crosswind runway. In contrast to the other alternatives under this runway alignment, the taxiway would be north of the runway to facilitate access to the landside facilities, and the runway would be shifted approximately 400 feet to the west. Access from Airport Road to these facilities would be via a new approximately 0.8-mile road that begins at the current location of the Sportsmen's Club driveway.

  Although favored by aviators, this alternative limits the amount of area available for future expansion of landside facilities and for locating a stormwater detention area where the soils are most suitable for infiltration and groundwater recharge (i.e., Granby soils). In addition, the required access road could encourage development north of the runway, which is incompatible with the City's goal of separating urban development from farmland. For these reasons, this alternative was deemed to be neither prudent nor feasible, and was eliminated from further study.

- **Alternative 3D** locates landside facilities in the vicinity of the existing terminal facilities located south of the proposed runway, but divides these facilities on either side of the existing turf crosswind runway. It was initially developed to shield the more utilitarian T-hangars from view of motorists on Airport Road, by locating corporate hangars between the T-hangars and the road. However, during the public informational meeting, many aviators expressed concerns over this arrangement of the hangars from the standpoint of snow buildup and aircraft traffic congestion. Additionally, they indicated the separation of the hangars from the terminal/apron area was undesirable.
- **Alternative 3F** is similar to 3D except for the arrangement of aircraft storage facilities. T-hangars and corporate hangars are located in separate, but adjacent areas for better traffic flow and ease of snow-free maintenance. This arrangement was viewed by aviators at the public informational meeting as more favorable than 3D, but still lacking practicality due to the separation of the hangars from the terminal/apron area

Alternative 4: Reorient and Extend the Runway Northwest/Southeast

The orientation of this proposed runway alignment is located between the existing runway and the runway orientation in Alternative 3. This Alternative would offer a runway/taxiway configuration and landside facilities similar to Alternative 3. However, a hill with an elevation of approximately 1020 feet MSL is located in the flight path less than four-tenths of a mile from the northwest end of the designated runway. This obstruction is considered a safety hazard; therefore this project alternative does not provide feasible means to satisfy the safety improvement aspects of the project Purpose and Need. In addition, other concerns have been expressed by project stakeholders regarding potential difficulties in the acquisition of adjacent land, relocation of the Sportsmen's Club and floodplain issues. Therefore, the reorientation and extension of runway 12/30 northwest/southwest is neither prudent nor feasible.

Alternative 5: Application of FAA Standards to the Existing Airport

This alternative attempts to maintain the airport in its present configuration and develop the additional facilities needed to meet FAA requirements. *FAA Advisory Circular 150/5070/6A, Airport Master Plans,* requires that existing facilities be assessed to determine the airport's capacity to meet projected demands. Also, *FAA Advisory Circular 150/5300-13, Airport Design Change 5,* needs to be applied to determine minimum design standards.

Despite upgrading facilities such as adding a parallel taxiway, widening the runway, upgrading navigational aids and refurbishing the terminal/FBO facilities, several items including safety areas, would still not be in compliance with FAA minimum standards. There are currently several buildings located south of Airport Road and drainage ditches at either end of the runway that are considered obstructions within the runway protection zone. In order to accommodate the current standards for a runway safety area, a flat graded area of 150-feet by 300-feet is required. In order to clear the buildings at a 20:1 slope and locate the drainage ditch outside the runway safety area, the runway would have to be shortened from its current length of 2,971 feet to 1,774 feet. This runway length would not meet FAA requirements for the aircraft design group, based on the airport elevation and mean maximum air temperature. In addition, future demand for airport facilities would not be accommodated.

Although the costs and environmental impacts associated with developing and maintaining this alternative would be less substantial than the preferred alternative, the airport would not meet FAA minimum standards. In addition, this alternative would limit the ability of the airport to accommodate new and some existing users and increase local economic growth. Also, these improvement costs would not be eligible for state or federal funding. Therefore, applying FAA standards to the existing airport is considered neither prudent nor feasible.

Alternative 6: Service from other Airports

Increased reliance on other airports within the region was considered in lieu of the proposed airport improvements. The distance and location of the nearest airports in the region are shown in Table 2A.

Table 2A Airports in the Vicinity of Morey Airport

Airport	Associated City	Distance to Morey Airport (miles)	Direction From Morey Airport	Approximate Travel Time (minutes)
Baraboo – Dells	Baraboo	30	NNW	50
Blackhawk*	Cottage Grove	17	E	40
Gilbert Field*	Rio	27	NNE	50
Dane County Regional	Madison	10	E	35
Portage	Portage	30	N	50
Sauk Prairie*	Prairie du Sac	16	NW	20
Jana*	Edgerton	28	SE	60
Verona*	Verona	9	S	20
Waunakee*	Waunakee	5	NE	20

Adapted from Mead & Hunt, *Master Plan Morey Airport, Volume 1, Airport Requirements, October 15, 1990.*

*Privately owned airports

As indicated, there are many airports within the region. However, not all of these airports can accommodate the types of aircraft that currently use, or are projected to use, Morey Airport. Of the nine regional airports listed in Table 2A two have runways that are comparable in size to the existing runway at Morey Airport (Blackhawk and Sauk Prairie), and three are substantially larger (Dane County, Baraboo and Portage). The remaining four airports have substantially shorter runways and three are only comprised of turf. Although a combination of these airports could likely accommodate the additional number of aircraft and operations that would be generated should Morey Airport cease to exist, no one airport could accommodate all operations and based aircraft as a result. In addition, the vehicular travel time for current pilots and passengers to drive to a suitable alternate airport would range from 20 – 60 minutes. This would offset the advantage of using air travel to reduce travel time to and from a given destination. Because of its location within Dane County and its proximity to other area airports, Morey Airport is an important component in the regional air transportation system by serving western Dane County. Other airports identified in Table 2B are not geographically positioned to meet this role.

The most obvious replacement or supplement for operations at Morey Airport is Dane County Regional Airport (DCRA). However, it is important to note that Morey Airport is classified as a reliever for DCRA and is strategically located to accommodate extra traffic from DCRA. In addition, a major focus at Morey is flight training. This use is not as compatible with the commercial operations and traffic at DCRA. DCRA has chosen not to provide a substantial amount of accommodations for private aircraft storage. Personal (including flight training) and corporate operations are well suited to Morey Airport and will be more safely and functionally accommodated there than at DCRA.

Alternative 7: Alternative Modes of Transportation

This alternative is simply inappropriate to satisfy the transportation needs of the existing and projected users of the airport. The purpose of air transportation is to provide fast, convenient transportation. Alternate modes of transportation include the automobile, rail, and interstate bus. The slower speeds associated with these modes render them undesirable at long distances. Passenger trips originating from Morey Airport are typically several hundred miles in length. This alternative was rejected because it does not meet the speed and convenience aspects of air transportation.

Alternative 8: Develop a New Airport at Another Location

Due to expanding municipalities, the level of rural residential development, topography, and remaining environmental features in the geographic area Middleton, it would be difficult to locate another suitable airport site that would have fewer environmental impacts than the proposed improvements to the existing facility. This Alternative would likely require zoning changes and would not be consistent with local land use and transportation plans. Relocation of Morey Airport is beyond the scope of the project purpose and need and, therefore, is not considered a viable alternative.

3.1 AIRPORT SETTING

Morey Airport is located within the corporate limits of the City of Middleton, Dane County, Wisconsin. It is bordered on the south by Airport Road, on the west by Pheasant Branch Creek and agricultural land, and by agricultural and undeveloped land on the north and east sides. The airport is located approximately 1.5 miles northwest of Middleton's central business district, and Middleton is located at the northwest periphery of the Madison metropolitan area. Exhibits 1 and 2 depict the airport and surrounding vicinity. Morey Airport is located within Section 3 of Township 7 North, Range 8 East. The City of Middleton is located within Dane County in south-central Wisconsin. The Towns of Middleton and Springfield are located west and north of the Airport, respectively. Adjacent counties include Jefferson, Dodge, Columbia, Sauk, Iowa, Green and Rock.

Morey Airport is classified in the Federal Aviation Administration (FAA) National Plan of Integrated Airports (NPIAS) as a "General Utility" airport. A General Utility airport serves any aviation other than commercial or military. Morey Airport provides training facilities and facilities for private-based aircraft, as well as an alternative to using more congested airports.

3.1.1 Climate

The climate of this geographical area is typically continental, and is under the influence of the prevailing westerly wind belt. As a result, the City of Middleton experiences a variety of weather conditions. The winters are long, cold and snowy, and the summers are warm and occasionally humid. The mean maximum temperature during the winter months is 30.5°F, and the mean minimum temperature is 13.5°F. During the summer months, the mean maximum temperature is 78°F and the mean minimum is 56°F. Average annual snowfall is 37 inches and average annual rainfall is 24.6 inches.

3.1.2 Airport Development History

Morey Airport began operation in 1942 when Howard Morey, a pioneer of aviation in Wisconsin, purchased the property and opened the airport. At that time, the airport was comprised of 140 acres and included an undefined sod landing field. In 1944, the airfield consisted of four turf landing strips. The NE-SW turf strip was abandoned in 1964, and in 1968 Runway 13/31 (now designated as Runway 12/30) was paved with asphalt to 2,971 feet long and 40 feet wide. Morey Airport was included in the National Plan Integrated Airport Systems in 1987 as a general aviation reliever airport to Dane County Regional Airport and is still classified as a reliever to this airport.

3.2 AIRPORT FACILITIES

Facilities at Morey Airport include both airside and landside elements. Exhibit 3 illustrates the facilities described in the following sections.

3.2.1 Runways

Morey Airport is currently served by three active runways. The primary runway (Runway 12/30) is 2,971 feet in length, paved with asphalt, and is oriented northwest/southeast. The crosswind runway (Runway 18/36) is 2,175 feet long and comprised of mowed grass and oriented north/south. An additional grassed runway (Runway 9/27) is 2,240 feet long, located south of the primary runway, and oriented east/west. There are no paved taxiways; therefore, aircraft traffic must use the active runway as a taxiway.

3.2.2 Navigational Aids

The existing navigational aids at Morey Airport consist of low-intensity runway lighting on Runway 12/30. This lighting does not meet FAA recommended standards.

3.2.3 Landside Facilities

Landside facilities at the airport include a FBO/terminal building that includes flight training and maintenance facilities, a hangar/storage facility that houses approximately eight aircraft, a gravel parking apron, aircraft tie-down areas and a double-walled 10,000-gallon fuel storage/dispensing facility containing 100LL (AvGas).

Due to the vintage of the facility, accessibility guidelines for persons with disabilities were not incorporated into the original design of the airport. Therefore, facilities such as parking, accessible routes, restroom facilities, entrances, ground surfaces, etc. do not meet current ADA guidelines.

3.3 TRANSPORTATION NETWORK

3.3.1 Regional Highway System

A network of U.S., state and county highways serve the City of Middleton. U.S. Highway (USH) 12 connects the Middleton area with Sauk City, Baraboo and Wisconsin Dells to the north, and the southeast side of Madison and Cambridge to the south and east. State Trunk Highway (STH) 14 connects Middleton with Cross Plains, Black Earth and Spring Green to the west. County Trunk Highway (CTH) M intersects with STH 12 less than one mile east of the airport and connects Middleton with the northwest portion of Madison to the east and Verona and Oregon to the south. University Avenue, a major arterial that connects Middleton with central Madison, intersects USH 12 approximately 1 mile south of the CTH M/USH 12 intersection.

The proposed expansion of USH 12 from 2 lanes to 4 lanes from Sauk City to Middleton is scheduled to occur within the next few years. This will generally occur along the existing highway corridor, although the proposed alignment will bypass Middleton with an interchange occurring at Airport Road. This interchange will be within approximately one-half mile of the airport.

3.3.2 Airport Access

The only means of vehicular access to Morey Airport is via Airport Road, which is a two-lane road adjacent to the south boundary of the airport property. The City plans to expand this road to 4 lanes past the Airport in 2002, and possibly 2003. An approximately one-quarter mile section of this road, from USH 12 west to Laura Lane, has already been improved to four lanes.

3.3.3 Public Transportation

The City of Middleton does not operate a municipal bus service. Madison Metro bus routes serve much of Middleton; however, this service does not currently include the Airport. Taxi service is available to and from Morey Airport on an as needed basis. There is no direct service to Middleton from either a passenger bus or rail operator such as Greyhound, Trailways, or Amtrack.

3.4 JURISDICTIONAL AUTHORITY

Morey Airport is owned by the City of Middleton, and is operated by a private party under contract to the City. The City of Middleton provides a variety of services to its citizens; however, not all services are provided to Morey Airport. A discussion of services available at the airport and the responsible entities is presented in the following sections.

3.4.1 Solid Waste Disposal

Examples of solid waste generated at Morey Airport include office waste, cardboard, plastic, glass, floor sweepings, etc. The solid waste is collected by Waste Management, Inc., a contracted waste hauler. The waste is then recycled or transported to a landfill, based on the type of material and corresponding disposal methods.

3.4.2 Emergency Services

Services such as fire protection, emergency medical service and police protection, are provided for the Airport by the City of Middleton. The Middleton fire and rescue station is located approximately 2 miles from the Airport.

3.4.3 Utilities and Infrastructure

Morey Airport is not currently connected to the City's potable water or sewage system, although existing water and sewer lines are located along Airport Road and/or in the adjacent business park. The Airport currently utilizes a private septic system consisting of two holding tanks for wastewater treatment. Potable water at the Airport is provided by an on-site drilled well. Water and sewer service will be available to the airport when Airport Road is improved. Madison Gas and Electric Company provides electricity and natural gas service to the Airport.

3.5 AREA LAND USE

3.5.1 Existing Land Uses

Land uses surrounding Morey Airport include a combination of agricultural, commercial, recreational and residential land (Exhibits 3 and 6). South of the Airport, along Airport Road, is a new business park development, a restaurant, a private indoor sports complex, and public soccer fields used by the Town of Middleton schools. Further east, along Airport Road, is a combination of residential and commercial development, as well as a sportsmen's (shooting) club. Homes along Airport Road will be relocated prior to improvements to Airport Road. A residential area is located to the northeast on a wooded hill. Directly east, north and west of the Airport are agricultural lands including row crops, sod and tree nursery land. Further to the east and west are scattered residential developments. Sunset Ridge Elementary School is located approximately 2.3 miles west of the Airport.

3.5.2 Existing Zoning

Zoning in the vicinity of Morey Airport is controlled by several jurisdictions. The City of Middleton enforces shoreland zoning within its corporate limits and wetland protection issues are governed at the state and federal level. The City of Middleton and the Towns of Middleton and Springfield each have general zoning ordinances.

According to the City of Middleton Zoning Districts Map (revised May 15, 2001), the area encompassing the Airport is zoned Agriculture (Exhibit 6). A portion of the land to the east and two small parcels to the southeast are also zoned agricultural. Adjacent land to the west, south, and a parcel east of the airport is zoned as Planned Development. The area directly north of the Airport is located in the Town of Springfield and is zoned A-1 (Exclusive Agriculture).

3.5.3 Future Land Use

Future plans for development within the "Northwest Quadrant" of the City of Middleton, which includes Morey Airport, are currently being developed. Land use along Airport Road, within this quadrant, is expected to become more commercial in nature but will also include some open space and recreational areas. Emphasis will be placed on low-impact development from the standpoint of hydrology and hydraulics.

3.6 EXISTING ENVIRONMENT

Morey Airport is located in a broad, flat basin that was formerly glacial Lake Middleton. The North Fork of Pheasant Branch Creek flows along a portion of the west side of the Airport. The North and South forks merge south of the airport and eventually flow into Lake Mendota. The following sections generally describe the existing environment within the vicinity of the Airport.

3.6.1 Geology and Soils

Morey Airport is located in the Southeastern Ridges and Lowlands Natural Division of Wisconsin (Hole and Germain, 1994). The underlying geology of this area consists of a Pre-

Cambrian basement of igneous and metamorphic rock followed by Cambrian sandstone of the Mt. Simon formations, a confining unit of Eau Claire Shale and a Paleozoic bedrock unit. Unconsolidated glacial till, outwash, and lacustrine sediment overlie this geologic structure. Isolated hills called drumlins, which are glacial features, are located northeast and northwest of the Airport. The drumlin to the northwest, while outside runway safety zones, is in direct alignment with the main runway and is an obstacle pilots must consider when flying into/out of the airport. Both drumlins must be considered in expansion plans to ensure proper safety zones are met.

The Soil Survey of Dane County, Wisconsin (USDA, 1978) identified two predominant soil map units at the Airport: Granby loamy sand located over a large central portion of the property and Wacousta silty clay loam on the southern and northern edges (Exhibit 7). Soils of the Granby series are low in fertility and consist of deep, poorly drained, nearly level soils on low valleys and old lakebeds. These soils formed in deep outwash under sedges and grasses, and are underlain by medium sand. The Wacousta series is also low in fertility and consists of deep, nearly level, poorly drained soils on low benches in old lakebeds. This soil formed under sedges and has a few thin layers of very fine sand within a silt matrix. Both soils are considered to be hydric (wetland) soils; however, Pheasant Branch Creek and the other adjacent drainage ditches provide some drainage of the soils. Granby soils are relatively permeable which allows for infiltration of surface water. Wacousta soils are less permeable and more prone to ponding during periods of excessive precipitation and snowmelt. As such, Granby soils are more suitable for stormwater features that promote infiltration.

3.6.2 Hydrogeology

Approximately two miles west of the project area is a regional ground water divide. The ground water east of the divide eventually discharges into Lake Mendota. The ground water to the west discharges into the Black Earth Creek watershed. Based on surface topography, which usually is an indicator of regional ground water flow, and a review of the *Water Table Map of Dane County, Wisconsin*, groundwater flow is expected to be in an easterly direction. The seasonal high water table for the Granby and Wacousta soils is 0-1 feet deep from the ground surface (USDA, 1978). However, Pheasant Branch Creek and other associated drainage ditches adjacent to the airport property, likely have lowered the average groundwater depth.

3.6.3 Surface Water and Wetlands

Morey Airport is located in a broad, flat basin at an elevation of approximately 926 feet above mean sea level that was formerly glacial Lake Middleton. Prior to settlement this area probably drained toward Black Earth Creek and contained no well-defined stream channels. An outlet was cut to the east in the mid-1800's to facilitate drainage for agricultural purposes (NFPBWC, 1999). The North Fork of Pheasant Branch Creek and its tributaries are man-made drainage ditches.

As illustrated by Exhibit 3 the Airport is bordered on the west by the North Fork of Pheasant Branch Creek, which originates approximately three miles north-northwest of the airport. The east side of the property, and portions of the north and south sides, are bordered by drainage ditches that eventually discharge into Pheasant Branch Creek. In addition, local shallow ground water discharges into Pheasant Branch Creek, contributing to base flow.

Pheasant Branch Creek flows through unconsolidated glacial till and its channel is easily erodible. High sediment, nutrient and pesticide loads to Pheasant Branch Creek result from the agricultural and expanding urbanized nature of the watershed and have resulted in degraded water quality. Recent monitoring of Pheasant Branch Creek has revealed a violation of the dissolved oxygen standard (5 mg/l), elevated bacteria counts and a "poor" to "very poor" biotic index (DCRP, 1999).

A USGS stream gauge is situated in Pheasant Branch Creek near Airport Road at the southwest corner of the Airport property. Historic stream flow records indicate a base discharge of approximately 1.6 cubic feet per second (cfs). Observations of Pheasant Branch Creek indicate that the reach of stream adjacent to the Airport is shallow (approximately two feet-deep) with a silty substrate. Due to the low base flow and land use impacts, the upper portion of the creek, including the area adjacent to the Airport, likely supports a limited forage fishery. From Pheasant Branch Marsh to Lake Mendota, a more-diverse warm water fishery exists.

Historically, prior to the construction of drainage ditches, much of the project area was likely wetland. However, over the past century, most wetlands in the area have been drained for agriculture. URS Corporation conducted a delineation of wetlands located within the areas of proposed impact on the subject property in August 2000. Indications of wetlands were observed and mapped along the drainage ditches and in isolated depressions on the Airport property. Approximately 20 acres of wetlands currently exist within the study area (Exhibit 3).

According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, a portion of Morey Airport lies within the 100-year floodplain of Pheasant Branch Creek. However, a more-detailed flood analysis recently conducted for the area indicates a substantial portion of the airport property remains within the 100-year floodplain (R. S. Grant, 1999) (Exhibit 8). Following the flood of 1948, a berm was constructed along the portion of Pheasant Branch Creek that borders the Airport. A berm crest profile from 1996 indicates the elevation of the top of the berm ranges from approximately 925 to 931 feet MSL. This berm offers partial protection to the Airport property from a 100-year flood event. A berm was not constructed along the west bank of Pheasant Branch Creek in the vicinity of the Airport. Currently, Airport Road, the berm and Runway 12/30 are the controlling features of flood flows in the area of the Airport.

3.6.4 Flora and Fauna

Cultivated agricultural land occurs north (corn), east (corn and soybean) and west (sod) of the airport. The area to the south is currently being developed as a business park. Areas of the airport property not used for aeronautical purposes are primarily mowed turf or planted with agricultural crops. Wetland vegetation occurs in wetter portions of cultivated fields, in other isolated depressions adjacent to runways, and along drainageways.

There is very little quality wildlife habitat available in the airport vicinity. Wildlife habitat within the airport property is primarily limited to the undisturbed areas located along Pheasant Branch Creek, drainage ditches and the former Bruce Company property to the east. These areas consist of tall grasses and forbs. In addition, there are some narrow strips, approximately 25 feet wide, adjacent to the runways that are not routinely mowed. These areas of habitat are comprised of a variety of low grasses and forbs, interspersed with small trees and shrubs. Wildlife most likely to occupy this habitat includes grassland songbirds such as the field

sparrow, eastern bluebird and meadowlark, and small mammals such as mice and rabbit. Sandhill cranes are also frequent transient visitors.

Pheasant Branch Creek provides potential habitat for semi-aquatic furbearers such as muskrat and mink, and some loafing habitat for waterfowl. However, large numbers of waterfowl would not be expected due to the limited water surface area available in the creek. The dense grass cover along Pheasant Branch Creek and other areas around the periphery of the airport provides potential nesting cover for certain species of waterfowl. Some species of amphibians are likely present along Pheasant Branch Creek, as well as in other ditches and wetlands on and adjacent to the airport property. There have been reported sightings of coyote at the airport and there was evidence (i.e., tracks, browse, scat) of white-tailed deer and raccoon present. Other wildlife likely to inhabit the property, based on available habitat, include woodchuck, red fox, striped skunk, garter snake and various insects.

The cultivated (corn) portions of the airport property provide a seasonal cover and food source that attract various wildlife. However, there is similar agricultural cover on adjacent properties that should reduce the likelihood of wildlife concentrations on airport property. The seasonal ponding of water that occurs on the airport property also is an attractant for wildlife, primarily waterfowl and shorebirds.

In general, based upon observations of the subject property and adjacent properties, there is a limited amount of contiguous habitat available for wildlife, and most wildlife occurrences at the airport are transient in nature.

3.6.5 Threatened and Endangered Species

An endangered resources review was requested from the WDNR Bureau of Endangered Resources regarding the proposed airport project. The WDNR indicated that five state-listed species and a number of sensitive communities are associated with the wetland complex of Pheasant Branch Marsh and Creek, which is several miles downstream from the reach of Pheasant Branch Creek that flows past the project area (Appendix D). They did not specify the special status communities or species in this area. The WDNR concluded that due to the disturbed nature of Pheasant Branch Creek adjacent to the Airport, it is unlikely that listed species or natural communities would be present in the vicinity of the site.

A similar request was made of the U.S. Fish and Wildlife Service (USFWS). A reply letter (Appendix D) indicated that the following federally listed threatened or endangered species occur in Dane County:

- Bald eagle (*Haliaeetus leucocephalus*) – Threatened
- Prairie bush-clover (*Lespedeza leptostachva*) – Threatened
- Eastern prairie fringed orchid (*Platanthera leucophaea*) – Threatened
- Higgin's eye pearly mussel (*Lampsilis higginsi*) – Endangered

However, due to the nature and location of the proposed airport improvements, the USFWS concluded that the above listed species would not be affected.

3.6.6 Farmlands

Agricultural land is common in the project area. The airport property and adjacent properties to the north and east are currently zoned Agricultural. Most of the property west of the airport is developed as a sod farm, while row crops and/or hay are currently produced on the properties to the north, east and on the airport property itself.

3.6.7 Parks and Recreational Areas

The City of Middleton contains a variety of public, as well as private recreation areas. Examples include playgrounds, athletic fields, hiking/biking trails, etc. The Town of Middleton currently owns and maintains the soccer fields located just southwest of the airport property and south of Airport Road. However, these fields are located within the corporate limits of the City of Middleton and future commercial development of this property is anticipated. There are no other public recreational areas in the vicinity of the Airport, although the City plans to develop a fairly large recreational complex/community park in the future on the former Quisling property south of the Airport.

3.7 SOCIOECONOMIC DATA

3.7.1 Population

Historical and projected population data for the Towns of Middleton and Springfield, City of Middleton, Dane County, and the State of Wisconsin were obtained from the Wisconsin Department of Administration and the U.S. Census Bureau (Census 2000), and are presented in Table 3A. These data indicate there has been a substantial increase in population in the Town and City of Middleton from 1970 to 2000. The population of the Town of Springfield and Dane County has also increased during this period, but at a reduced rate. The population is projected to increase in these areas over the next 15 years, but at a slower rate.

Table 3A Population Statistics

Year	Town of Middleton	Town of Springfield	City of Middleton	Dane County	State of Wisconsin
Historical					
1970	2,028	1,947	8,246	290,272	4,417,821
1980	2,598	2,379	11,848	323,545	4,705,642
1990	3,628	2,650	13,785	367,085	4,891,769
2000	4,594	2,762	15,770	426,526	5,363,675
Percent Change 1970 to 2000	126%	42%	91%	47%	21%
Projected					
2005	4,666	3,147	17,012	436,646	5,409,436
2010	4,942	3,280	17,883	454,699	5,512,313
2015	5,228	3,406	18,757	471,823	5,603,528
Percent Change 2000 to 2015	14%	23%	19%	11%	4%

Source: Wisconsin Department of Administration, Demographics Services Center and the U.S. Census Bureau, Census 2000

3.7.2 Employment Structure

A breakdown of the employment sectors in the Towns of Middleton and Springfield, City of Middleton, and Dane County is provided in Table 3B. This data was compiled from the 1990 Census as this information is not currently available from the 2000 Census. Employment in these jurisdictions is diverse with no sector being dominant within a certain jurisdiction. The primary employment sectors for the Town and City of Middleton and Dane County are retail trade; finance, insurance and real estate; and professional and related services. The Town of Springfield varies from the other jurisdictions as agriculture and construction are more prominent sectors. Similarly, a 1997 estimate of employment sectors indicates retail trade and services are the predominant employment sectors for Dane County (U.S. Census Bureau, 1997).

The unemployment rate for Dane County is relatively low at 1.8% (April 2001 estimate) and ranged from 1.1% to 2.3% from January 1996 to April 2001 (Wisconsin Department of Workforce Development, 2001). This is lower than the rate for The State of Wisconsin, which is currently at 4.4% (April 2001 estimate) and ranged from 2.3% to 5.1% during this same period.

Morey Airport is not a major employer in the area. The airport currently employs 12 people, which includes 8 full time and 4 part time employees. Additionally, there are no businesses in the area that are primarily dependent upon it for business (e.g., a café, aircraft parts or repair shop, etc.)

Table 3B Employment by Sector

	Percent Total Employed			
Sector	Town of Middleton	Town of Springfield	City of Middleton	Dane County
Agriculture, forestry and fisheries	4.1	12.8	1.8	2.7
Mining	0	0.3	0	0.04
Construction	6.3	10.2	5.2	4.3
Manufacturing – nondurable goods	2.7	6.1	4.3	6.1
Manufacturing – durable goods	7.8	7.4	5.6	6.0
Transportation	1.6	2.2	1.4	2.7
Communications & other Public Utilities	2.5	2.8	3.3	2.6
Wholesale Trade	6.0	3.7	2.4	3.6
Retail Trade	12.4	11.5	16.4	16.7
Finance, Insurance & Real Estate	15.1	8.9	10.8	9.0
Business & Repair Services	4.8	3.0	4.2	3.9
Personal Services	1.0	2.9	2.0	2.5
Entertainment & Recreational Services	1.7	0.3	1.2	1.1
Professional & Related Services				
Health Services	11.0	8.2	13.2	9.8
Educational Services	8.0	8.7	10.9	13.6
Other	8.8	7.0	10.0	8.3
Public Administration	6.2	4.0	7.3	7.1
Total	100	100	100	100

Source: 1990 Census Summary File Tape 3A

3.7.3 Housing

Table 3C provides a brief overview of the 2000 Census housing statistics in the Towns of Middleton and Springfield, the City of Middleton, Dane County, and the State of Wisconsin. According to the 1990 Census, the median home value for the City of Middleton is $92,800, which is less than the Towns of Springfield and Middleton (this information is not currently available from the 2000 Census). The median home value for the City of Middleton is greater than that for Dane County ($77,900) and the State of Wisconsin ($62,100).

Table 3C Housing Characteristics

Characteristic	Town of Middleton	Town of Springfield	City of Middleton	Dane County	State of WI
Housing Units[1]					
Total	1,610	993	7,397	180,398	2,321,144
Owner Occupied	1,383	832	3,672	99,895	1,426,361
Renter Occupied	189	135	3,423	73,589	658,183
Vacant	38	26	302	6,914	236,600
% Owner Occupied	86%	84%	50%	55%	61%
Median Home Value[2]	$124,500	$98,200	$92,800	$77,900	$62,100

Source: [1] US Census Bureau, Census 2000
[2] 1990 Census Summary File Tape 3A

3.7.4 Per Capita Income

Per capita personal income for Dane County, the State of Wisconsin, and the United States, has grown steadily between 1989 and 1999 (the last year for which this information is currently available) (Table 3D). Over the past eleven years of available data, Dane County's per capita personal income grew by a total of $12,027 while the State of Wisconsin's grew by $10,071 and the United States by $9,980. Per capita personal income for Dane County has consistently been greater than that for the State of Wisconsin and the United States during this period.

Table 3D Per Capita Personal Income			
Year	Dane County	State of Wisconsin	United States
1989	$19,972	$17,299	$18,566
1990	$21,198	$18,160	$19,584
1991	$21,935	$18,711	$20,089
1992	$23,326	$19,872	$21,082
1993	$24,133	$20,639	$21,718
1994	$25,210	$21,699	$22,581
1995	$26,404	$22,573	$23,562
1996	$27,377	$23,554	$24,651
1997	$28,678	$24,941	$25,924
1998	$30,214	$26,284	$27,203
1999	$31,999	$27,370	$28,546
Source: U. S. Department of Commerce, Bureau of Economic Analysis			

3.7.5 Environmental Justice Issues

In accordance with *Executive Order (EO) 12989, Federal Action to Address Environmental Justice in Minority Populations and Low Income Populations (1994)*, information is also provided regarding the presence of minorities and/or low income persons in the vicinity of Morey Airport.

Race and income statistics for the project area are presented in Table 3E. Information on population by race was derived from the 2000 Census, while income statistics were utilized from the 1990 Census (this information is not currently available from the 2000 Census). Information was obtained for the Towns of Middleton and Springfield, the City of Middleton and the Census Tract encompassing the site (Census Tract #109.02). This information indicates that the population in the vicinity of the airport and the larger local community is largely white, with a very small minority population. Also, the median family income in the area ranges from $44,659 (City of Middleton) to $60,000 (Town of Middleton). The percent of persons below the poverty level is highest in the City of Middleton at 5.7% and lowest in the Town of Middleton at 1.0%. The percent of persons below the poverty level in the census tract encompassing the site is toward the lower end of this range at 1.6%.

Table 3E Race and Income Statistics

	Town of Middleton	Town of Springfield	City of Middleton	Census Tract #109.02
Race[1]				
Total Population	4,594	2,762	15,770	6,622
% of Population				
White	97.8	97.7	92.1	97.1
Black	0.4	0.5	2.0	0.4
Am. Indian	0.2	0.1	0.5	0.2
Asian	0.8	0.5	2.7	0.8
Other	0.8	1.2	2.7	1.5
Income[2]				
Median Family	$60,000	$47,727	$44,659	$54,368
Per Capita	$23,739	$17,976	$17,436	$20,872
% of Persons Below Poverty Level	1.0	2.6	5.7	1.6
Persons per Household	3.2	3.0	2.3	3.1

Source: [1] U.S. Census Bureau, Census 2000
[2] 1990 Census Summary File Tape 3A

3.8 HAZARDOUS MATERIALS

A Phase I Environmental Site Assessment was conducted to evaluate whether current or historic activities on or near the subject property may have resulted in substantial contamination by hazardous materials or wastes, also known as "Recognizable Environmental Concerns" (RECs).

Based on the site reconnaissance and the information reviewed, one potential REC was found to be associated with current activities on the subject property. This potential REC is located west of the aviation fuel tank and comprised of a pile of debris (waste concrete, empty oil containers, and batteries) that was reportedly a site for burning airport-generated refuse. There is no indication that a REC could be expected at the subject property as a result of migration from nearby properties. However, there is documentation of historic leaking underground storage tanks located just east of the maintenance hangar. These tanks were removed and the site was given closure by the WDNR.

This Chapter examines the potential environmental impacts anticipated with implementation of the No-Action Alternative and the Development Alternatives (3F-Modified and 3G). The following subsections address each of the specific categories outlined by *FAA Order 5050.4A, Airport Environmental Handbook*. The individual sections are arranged to give a more thorough description of the potentially affected resource. Potential impacts under the No Action Alternative and the Development Alternatives are then discussed. Where necessary, a discussion of mitigation to minimize impacts or reduce an impact below the level of significance is presented.

4.1 NOISE

The potential impacts for noise generated by aircraft operating at an airport can be highly dependent upon the types of land uses around the airport and their proximity to the noise sources. Most airports in the U.S. have issues related to noise generation associated with the operation of their facility. Many times the noise issues do not fall within the regulatory purview established by federal, state or local governments, due to the nature of the perceived noise by a receptor. Standards have been established by the FAA regarding land use compatibility and noise impact mitigation to assist airports in addressing issues related to noise. It should be noted that in the FAA Environmental Handbook, Order 5050.4A, "No noise analysis is needed for proposals involving Design Groups I and II airplanes on utility (reference AC 150/5300-13) or transport type airports whose forecast operations in the period covered by the environmental assessment do not exceed 90,000 annual adjusted propeller operations or 700 annual jet operations ("adjusted" as defined in Report No. FAA-AS-75-1, Developing Noise Exposure Contours for General Aviation Airports"). Although this project qualifies under the above statement, the WDOT and the City of Middleton determined that due to the environmentally sensitive nature of this project and the sensitivity of the community, a noise analysis would be conducted using the FAA Integrated Noise Model (INM) software.

4.1.1 Noise

There are several statistical noise metrics designed to quantify aircraft-generated noise at airports. The most commonly used technique involves an annual average energy summation of the overall acoustical energy. The increasing cumulative intensity of the noise is displayed in a series of contours or lines of equal concentration. Each of the areas thus defined is associated with a varying degree of human response. These responses, in turn, are used to determine land uses that are compatible with the degree of increasing exposure.

From the various energy summation methodologies, the Day-Night Average Sound Level (DNL) is used in this analysis. The DNL is the accepted industry standard for aircraft noise measurements related to airports, though other metrics can be used. The DNL is the FAA standard used for determining land use compatibility and mitigation requirements when analyzing aircraft noise generated at an airport.

The DNL is a noise metric that adjusts the raw aircraft noise data to account for many of the human hearing characteristics, thereby more closely approximating the average human perception of aircraft noise. For instance, DNL uses the A-weighted decibel (dBA) as its basic unit, which differs from the standard decibel (dB) in that it is adjusted for the frequency (pitch) of a sound. Normal sensitivity of the human ear decreases at the out edges of the frequency spectrum; thus, very low and very high frequency sounds are not nearly as obtrusive. Also, it has

been determined that the longer a person is exposed to a noise, the louder the noise will be perceived; therefore, duration is accounted for as well as in the DNL methodology.

Finally, the time of day during which aircraft operations take place is particularly important since the DNL metric applies a 10-decibel nighttime penalty to operations occurring between 10:00 p.m. and 7:00 a.m. In effect, this means that a 1-night operation is weighed as an equivalent of 10 daytime operations. DNL noise contours represent the noise level expected from the aircraft activity on an annual average of a 24-hour period.

As previously mentioned, the noise analysis for Morey Airport utilized the FAA Integrated Noise Model software, Version 6.0, to generate the DNL noise contours. The INM is considered to be a state-of-the-art tool for assessing airport noise. The program contains a database of aircraft performance and noise levels for a representative selection of aircraft. The software and data are continuously updated by the FAA to include new aircraft and changes to the computational methods and algorithms. Use of the software requires the development and input of variables, such as runway and flight track configuration, geometry and utilization rates, airport-related meteorological conditions, aircraft mix and traffic volumes.

Noise contours have been generated for two (2) runway configurations and two (2) time frames. The No-Action Alternative was evaluated under 1999 conditions, and Alternatives 3F-Modified and 3G were evaluated under 1999 and 2020 future conditions. Conditions for the year 2001 were not evaluated because data provided by AERO and FAA records were only available up through 1999. The only difference in runway orientation between Alternatives 3F-Modified and 3G is a slightly realigned turf runway under Alternative 3G. This does not substantially alter the noise contour configuration; therefore, these alternatives were analyzed together. Typically, a five-year future year is used when conducting environmental assessments and FAR Part 150 studies; however, for this project, it was requested that the longest term of projected aircraft activity be utilized in the development of the noise contours. This provides a conservative approach regarding the assessment of potential impacts from aircraft noise generated at the airport in the future. This extended period also provides the community some insight with regard to potential land use and compatibility issues related to the airport in the future. This will allow the City to begin appropriate planning for the future.

As indicated in the review of historic airport information, single-engine piston and light-twin engine piston aircraft conduct the majority of operations at the airport. Heavier propeller and possibly small personal jet aircraft are expected to have some activity in the latter forecast period. However, these larger aircraft are not expected to be a substantial part of the overall activity level in the future.

4.1.2 Data Development

To generate the input for the INM, several substantial data developments must occur. Much of the data was generated through discussions with the WDOT Bureau of Aeronautics and Morey Airport. Since there is no airport traffic control tower, or other means at the airport for recording activity on site, the users and management of the airport are the next best resource for establishing certain operational assumptions. The following is a list of base assumptions utilized for the model's data development:

- Local operations are anticipated to compose of approximately 85% of the airport's operations in the year 2020;
- Flight activity at the airport is estimated to be 85% daytime and 15% nighttime in the year 2020. The representative aircraft used in the INM for the airport's fleet mix in the year 2020 are:
  - Composite Single-Engine Piston Aircraft
  - Beech Baron 58 Twin-Engine Turbo Piston Aircraft
  - Cessna Conquest Twin-Engine Turboprop Aircraft
  - Cessna Citation II Twin-Engine Jet Turbine Aircraft
- Table 4A presents the breakdown of the runway end usage by percent for both the "No-Action" and "Future Proposed Action Scenarios" (under 1999 and 2020 conditions):

Table 4A - Projected Runway End Usage

Runway	Percent Usage
"No-Action Scenario"	
Runway 12	48 %
Runway 30	32 %
Runway 9	5 %
Runway 27	5 %
Runway 18	6 %
Runway 36	4 %
"Future Proposed Action Scenario"	
Runway 10	55 %
Runway 28	35 %
Runway 18	5 %
Runway 36	5 %

The path along the ground which the aircraft typically fly into and out of the facility are straight in and out for itinerant operations, with no turns occurring within two (2) miles of the field. Local operations follow a typical left-hand traffic pattern with standard distances and turns occurring for a general aviation airport. Exhibit 9 presents the flight tracks scenario used for the "Future No-Action Scenario." Exhibit 10 presents the flight tracks used in the "Future Proposed Action Scenario." These flight tracks represent the typical average paths flown by aircraft in and out of the facility

Table 4B presents the average daily aircraft operations for the "Future No-Action Scenario" (1999 conditions); Table 4C presents the average daily aircraft operations for the "Future Action Scenario" (under 1999 conditions); and Table 4D presents the "Future Action Scenario" (under 2020 conditions).

Table 4B - Future No-Action Scenario – Daily Operations 1999												
Aircraft	Itinerant Operations						Local Operations					
	Rwy 12	Rwy 30	Rwy 9	Rwy 27	Rwy 18	Rwy 36	Rwy 12	Rwy 30	Rwy 9	Rwy 27	Rwy 18	Rwy 36
COMSEP	2.74	1.82	0.57	0.57	0.68	0.46	46.77	31.18	5.13	5.13	6.16	4.10
Beech 58P	2.02	1.35					2.46	1.64				
Cessna 441	0.71	0.48										
Daily Subtotal	5.47	3.65	0.57	0.57	0.68	0.46	49.23	32.82	5.13	5.13	6.16	4.10
Group Total	11.40						102.57					
Grand Total	113.97											

Table 4C - Future Action Scenario - Daily Operations 1999				
	Itinerant Operations		Local Operations	
Aircraft	Rwy 10	Rwy 28	Rwy 10	Rwy 28
COMSEP	3.42	2.28	58.48	38.99
Beech 58P	2.53	1.69	3.07	2.03
Cessna 441	0.89	0.59		
Cessna Cit. II				
Daily Subtotal	6.84	4.56	61.55	41.02
Ops Group Total	11.40		102.57	
Grand Total	113.97			

Table 4D - Future Action Scenario – Daily Operations 2020								
	Itinerant Operations				Local Operations			
Aircraft	Rwy 10	Rwy 28	Rwy 18	Rwy 36	Rwy 10	Rwy 28	Rwy 18	Rwy 36
COMSEP	5.17	3.45	1.28	0.85	61.88	41.26	7.24	4.82
Beech 58P	3.68	2.45			3.26	2.17		
Cessna 441	1.15	0.77						
Cessna Cit. II	1.49	1.00						
Daily Subtotal	11.49	7.67	1.28	0.85	65.14	43.43	7.24	4.82
Ops Group Total	21.29				120.63			
Grand Total	141.92							

No Action Alternative

Noise contours for the No Action Alternative (based on 1999 operations) are presented in Exhibit 11. The noise contours generated for this alternative include the 65 and 70 DNL. The total area contained within each noise contour for this alternative is presented in Table 4E below.

The 65 DNL level for sensitive areas outside the airport boundaries have been determined by FAA Order 5050.4A to represent the impact threshold. Aircraft noise below 65 DNL is not considered to have an impact. For this alternative, both the 65 and 70 DNL contours remain on airport property and currently do not impact sensitive receptors (Exhibit 11). The total area contained within the 65 DNL contour is 0.026 square miles. The size or configuration of the contours is not anticipated to change under this alternative.

Development Alternatives

Based on the aircraft operations data, noise contours of 65 and 70 DNL were generated for the development alternatives under 1999 and 2020 conditions. Exhibit 12 (1999 conditions) and Exhibit 13 (2020 conditions) present the graphical depiction of each scenario. As discussed previously, the only difference in runway orientation between Alternatives 3F-Modified and 3G is a slight shift in the turf runway for Alternative 3G. This does not substantially alter the configuration of the contours; therefore, they were grouped together. The total area contained within each noise contour is presented in Table 4E below.

Table 4E Noise Contour Areas Associated with Each Alternative.		
	Total Area (square miles) Contained within Contour	
Alternative	65 DNL and greater	70 DNL and greater
No Action	0.026	0.006
Development Alternatives (1999)	0.028	0.001
Development Alternatives (2020)	0.063	0.011

Although the configuration of the noise contours varies between the No-Action Alternative and the Development Alternatives under 1999 conditions, the total area contained within each contour is relatively similar as the number of flights and fleet mix does not change. The area under each contour increases for the Development Alternatives under 2020 conditions relative to 1999 conditions; however, both the 65 and 70 DNL contours remain on airport property and do not impact sensitive receptors (Exhibit 13). Based on the standard land use guidelines presented in Exhibit 14, Land Use Compatibility with Yearly Day-Night Average Sound Levels from FAR Part 150, Airport Noise Compatibility Planning, the noise modeling indicates that there are no areas exceeding the recommended maximum levels of exposure for either period of the Development Alternatives.

The results of the noise analysis indicate that the Development Alternatives would not reach the level of significance in noise exposure (increase of DNL 1.5 dB or more at any noise sensitive location within the DNL 65+ dB contour) when compared to the No-Action Alternative. Further, the noise contour analysis indicates that in future years, there would be a reduction in the DNL 65 dB contour for both the No-Action and Proposed Action Alternative when compared to noise analysis provided in the 1993 Airport Master Plan.

For additional information on noise-related impacts, refer to the subsections titled Compatible Land Use, Social Impacts and Construction Impacts.

4.2 COMPATIBLE LAND USE

An airport's compatibility with surrounding land uses is generally evaluated by considering the airport's impact on its surroundings and the impact of the surrounding land use on the airport. In general, the local population expresses concerns regarding noise. After substantial study regarding levels of annoyance and other noise-related issues, the FAA has recommended land use compatibility guidelines based on annual average aircraft noise. The FAA has also developed guidelines associated with neighboring land use compatibility with aircraft operations including wildlife attractants in close proximity to airports. This section evaluates the compatibility of aircraft noise and wildlife hazards associated with the proposed alternatives, with existing and proposed land uses (Exhibit 14).

4.2.1 Aircraft Noise

According to FAA Order 5050.4A, Chapter 5, Paragraph 47, Section e(2)(a): "The compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of noise impacts related to that airport." The compatibility of land uses in the vicinity of the airport is primarily a function of the type of land used and the levels of aircraft noise. The determination of compatibility is accomplished by comparing the noise levels by land use with Exhibit 14, Land Use Compatibility with Yearly Day-Night Average Sound Levels from FAR Part 150, Airport Noise Compatibility Planning FAA Noise Compatibility Guidelines. These published federal guidelines were established as a planning tool and are not intended to replace local criteria or standards with respect to airport noise compatibility. The guidelines are based on the DNL noise level estimate of the average day of the year. Generally, land uses are compatible if the estimated noise level exposure of the area is less than 65 DNL.

No Action Alternative

Under this alternative, land uses within the 65 DNL are compatible with federal guidelines. As the size or configuration of this contour is not anticipated to change under this alternative, land uses should remain compatible under this alternative.

Development Alternatives

Based on the federal guidelines referenced, the land uses within the 65 DNL for both scenarios of the development alternatives (1999 and 2020) are compatible. Therefore mitigation measures are not warranted. To maintain future land use compatibility of areas adjacent to the airport, considerations of land acquisitions or controls should be made based on the ultimate airport design.

4.2.2 Wildlife Hazards

FAA *Advisory Circular 150/52000-33, Hazardous Wildlife Attractants On or Near Airports*, identifies potential wildlife attractants and recommends siting criteria, including separation from airports. The Advisory Circular identifies land uses and features that are incompatible with safe airport operations because of their tendency for attracting birds and other wildlife that, in turn, result in an increased risk of aircraft strikes and damage. The FAA recommends that these incompatible uses be located at least 10,000 feet from airports servicing jet aircraft. Some small private jet aircraft may use the airport in the future. Additionally, compensatory wetland mitigation that may be required should be excluded from beneath the approach and departure airspace for at least five statute miles from the ends of runways.

Wetlands are the only listed incompatible land feature that occurs in the vicinity of Morey Airport. Other land uses in the vicinity of Morey Airport considered potentially compatible with safe airport operations, but requiring individual evaluation, include water detention or retention ponds, landscaping, golf courses, and agricultural crops. The FAA Advisory calls for evaluating these uses individually based on their potential to attract wildlife.

Morey Airport is bordered by Pheasant Branch Creek and several drainage ditches, and contains wetland areas that are seasonally flooded. Because these water sources and wetlands are

naturally occurring in the vicinity of the existing airport, the Advisory Circular recommends monitoring wildlife use and habitat changes in these areas to ensure safe aircraft operations. In addition, at least some of the required mitigation for wetland, stormwater and floodplain impacts may be sited on the airport property. Although the FAA recommends that mitigation for wetland impacts be sited greater than 10,000 feet from the airport, they allow exceptions to be considered if the affected wetlands provide unique ecological functions. Affected wetlands and floodplain areas at Morey Airport may fall into this category because they provide stormwater storage and groundwater recharge, which are functions that must be maintained within the local watershed.

Agricultural land uses are located both on and adjacent to the airport. These areas are within 10,000 feet of the airport and beneath the current approach/departure airspace. The No Action and Development Alternatives would continue agricultural practices on the airport and adjacent properties where they are compatible with existing and future airport operations. These include areas outside of the runway safety area, object free area, and away from areas critical to the proper operation of visual and electronic navigational aids. This issue is discussed further in the *Farmland* section (Section 4.16).

No Action Alternative

Compensatory wetland mitigation will not be required under this alternative, therefore; additional wildlife hazards will not be created. Areas adjacent to the airport (but outside of the runway safety area, object free area, and away from areas critical to the proper operation of visual and electronic navigational aids) will continue to be farmed and wetlands will still remain within 10,000 feet of the runways. These features have not posed a substantial wildlife hazard to Airport operations and are not anticipated to impact future operations under this scenario. As such, this alternative will not result in additional wildlife hazards at the site.

Development Alternatives

Under the development alternatives, farming may continue to be practiced in the vicinity of airport and wetlands will remain within 10,000 feet of the airport. Substantial wildlife hazards have not occurred at the site and this is not anticipated to change under these proposed alternatives.

The proposed development alternatives will increase the amount of impervious surface and will likely require construction of a stormwater detention feature(s). The development alternatives will also require compensatory mitigation to offset unavoidable wetland impacts. A stormwater detention feature and/or compensatory mitigation may occur on site; however, using design criteria for these features suggested by the FAA, the potential for increased wildlife hazards at the airport will be minimized.

Mitigation

Under the selected development alternative, a wildlife management plan may be developed in conjunction with the final design process to limit the risk of either bird or other wildlife strikes at Morey Airport. This management plan will address wildlife attracted to the adjacent waterways, wetlands, and stormwater management features. To discourage use by hazardous wildlife,

stormwater management and impact mitigation features will be designed according to FAA guidelines, which suggest the following design considerations:

- location of the feature outside of the approach/departure airspace,
- steep side slopes, riprap lining and linear shaping to discourage wildlife use,
- subsoil cultivation to encourage rapid stormwater infiltration,
- other features that may be identified in a wildlife management plan prepared by a wildlife damage management biologist in consultation with the U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers.

Implementation of these design considerations will minimize potential wildlife hazards associated with the chosen development alternative.

4.3 SOCIAL IMPACTS

Social impacts resulting from airport improvements are typically associated with relocation activities or other community disruptions, including alterations to surface transportation patterns, or disruption of existing communities, interference with orderly planned development, or a substantial shift in employment related to the proposed development. Social impacts are generally evaluated on areas of acquisition and/or areas of impact related to noise levels in excess of 65 DNL.

No Action Alternative

Under this alternative, there will be no changes to the existing airport layout. As such, social impacts to the surrounding area and local community will not occur.

Development Alternatives

Approximately 11.5 acres of agricultural land, located on two separate properties, will be acquired under Alternatives 3F-Modified and 3G. This area is falls within the building restriction area of the proposed runway and its landuse needs to be controlled by the airport. An additional 18.5 acres of easements will be acquired for these alternatives to provide the requisite clear zone and avigation easement, although farming may still be allowed in these areas. There are no relocations being considered for these acquisitions. Further, 22.6 acres of the Quisling property west of the airport would be impacted by this alternative. Ownership of this property has been transferred to the City of Middleton, but the previous owner has negotiated the right to continue to farm this parcel for the next several years.

The Middleton Sportsmen's Club, which consists of an indoor and outdoor shooting range, is located directly under the flight approach path (see Appendix 5). Therefore, the club would need to be relocated due to the potential for negative impacts of shooting range activities on approaching aircraft. No other business or residential relocations are anticipated for this alternative.

Airport Road in the vicinity of the site will be improved in the near future to accommodate the proposed interchange associated with the USH 12 relocation and increased development in this

portion of the city. These improvements will occur regardless of whether the airport is expanded. Expansion of the airport is not expected to substantially increase traffic on this road.

Disruptions or division of communities will not occur with the development alternatives. Additionally, appreciable impacts to employment are not anticipated under these alternatives.

Mitigation

FAA Order 5050.4A instructs that the provisions of the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* (URARPAPA) must be met when the relocation of a residence, business or farmland is involved. This Act instructs that URARPAPA would apply if businesses or farm operations would be relocated as a result of an airport-related project. Under requirements of the Act, the owner of the business or farm operation must be offered assistance in finding a location and reestablishing the business.

The City of Middleton will also need to comply with *FAA Order 5100.37A, Land Acquisition and Relocation Assistance for Airport Projects*, and *FAA Advisory Circular 150/5100-17, Land Acquisition and Relocation Assistance for Airport Improvement Program Assistance Projects*. These documents describe the process necessary to comply with URARPAPA.

If necessary and appropriate, the Middleton Sportsmen's Club would also be eligible for reimbursement for the financial loss directly attributable to the airport improvements. This would be determined through conformance with *URARPAPA*. The 2001 property tax valuation of the Sportsmen's Club, including the total land value and the total improved value (buildings, etc.) is $198,700. The WisDOT Bureau of Aeronautics, acting as the agent for the City of Middleton, has entered into discussions with the Sportmen's Club related to suitable relocation sites. It appears finding a site for relocation of the Sportsmen's Club is possible. One option under consideration would be to develop a new facility north of Madison near a similar existing facility.

4.3.1 Environmental Justice Issues

In accordance with *Executive Order 12989, Federal Action to Address Environmental Justice in Minority Populations and Low income Populations (1994)*, an analysis was completed regarding the potential for impacts to minorities and/or low income persons under the No Action Alternative and the Development Alternatives.

This Executive Order requires that minority and low-income populations do not receive disproportionately high and adverse human health or environmental impacts. It also requires the impact assessment process to include representatives of any low-income or minority population that could be affected by the project in the community participation and public involvement process.

No Action Alternative

No additional impacts are anticipated under this alternative, therefore this alternative will not adversely affect minority or low-income populations.

Development Alternatives

The current racial and financial make-up of the City of Middleton, the Towns of Middleton and Springfield and the census tract encompassing the site are presented in Table 3E. Based on this information, the census tract encompassing the properties to be directly impacted by the development alternatives does not exhibit a substantially higher than average percentage of minorities or low-income persons when compared with local jurisdictions.

This document is in compliance with U.S. DOT and FAA policies to determine whether a proposed project will have induced socioeconomic impacts or any other adverse impacts on minority or low-income populations; and it meets the requirements of Executive Order on Environmental Justice 12898 – "Federal Actions to Address Environmental Justice in Minority and Low-Income Populations". Neither minority nor low-income populations would receive disproportionately high or adverse impacts as a result of any of the alternatives selected for detailed study.

4.4 INDUCED SOCIOECONOMIC IMPACTS

Induced socioeconomic impacts address those secondary impacts to nearby communities due to the proposed development, including alterations in patterns of population movement and growth, public service demand, and changes in the business and economic activity. According to *FAA Order 5050.4A*, "Induced impacts will normally not be significant except where there are also significant impacts in other categories, especially noise, land use or direct social impacts."

In general, according to economists and planners, airports may create substantial unmeasurable social and economic benefits for the region they service. The more services an airport provides, the greater the potential for benefits can be expected. For example, airports with passenger service offer convenient air transportation that allows individuals the freedom to travel for preferred goods, services and personal needs. Business that need to transport raw materials and/or finished products can experience the same or similar benefits at airports with large, air cargo operations. Even on a smaller scale, airports can make the regional economy more competitive by providing businesses with better access to outside markets, materials and commerce.

Airports can bring essential services to a community, including enhanced medical care through an air ambulance or organ transplant transportation service, support for law enforcement and fire control, and courier delivery of mail and freight. These services would be considered beneficial by most residences of a community because they can improve the quality of life for residents and make the region more attractive for existing and new businesses.

No Action Alternative

This alternative would not impact patterns of population movement or growth, or public service demands. Anticipated economic benefits to the community from the development alternatives would not be realized with this alternative.

Development Alternatives

These alternatives are not expected to substantially shift patterns of population movement or growth, or negatively affect community-wide business and economic activity. While it is expected that water supply and sewage disposal will be provided by the City of Middleton after the expansion for either of the alternatives, this additional demand is not expected to substantially impact existing capacity to supply water or treat waste. These alternatives are expected to have a beneficial impact on community-wide business and economic activity by attracting more business flights. The improved runway is expected to benefit both existing business and industry, as well as provide an added incentive for new businesses to relocate to the area although there are no specific plans for new business to relocate to the area at this time.

4.5 AIR QUALITY

There are direct and indirect sources of air emissions associated with the operation of Morey Airport. Direct sources such as emissions from aircraft, service vehicles and fueling facilities contribute to releases of carbon dioxide (CO), volatile organic compounds, small particulate matter and other pollutants into the atmosphere. Indirect sources such as the mobilization of dust due to aircraft-generated turbulence and emissions from motor vehicles entering and leaving the airport property can effect air quality.

The federal government has set health-based ambient air quality standards (NAAQS) for the following six pollutants: carbon monoxide, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead, ozone, and PM10 (particulate matter of 10 microns or smaller). Aircraft pollutant standards, as mandated by the FAA, require airport conformance with the NAAQS as approved or promulgated under Section 110 of the Clean Air Act Amendments of 1977. A pertinent element of the implementation of the Clean Air Act is the requirement for states to designate all areas as non-attainment or attainment areas. Non-attainment refers to those areas that, by virtue of their historic ambient air pollution concentrations, violate these national standards. Dane County is in compliance with national attainment standards for all NAAQS pollutants (EPA, 2000).

Also, according to *FAA Order 5050.4A*, the procedures adopted in the handbook, *Air Quality Procedures for Civilian Airports and Air Force Bases* should be followed for analysis of air quality impacts (FAA, 1997). According to these procedures, an air quality analysis is required for a general aviation facility if it has an operations forecast greater than 180,000 annually. Currently, total annual operations at Morey Airport are 41,600. Due to the relatively low number of annual operations, and lack of a requirement for an air quality analysis, projected increases in airport operations are not expected to affect local NAAQS.

No Action Alternative

Under the No-Action Alternative, operations at the Airport are not expected to increase much more than the current level of 41,600 annually by the year 2020. As this total is well below the threshold of 180,000 operations recognized by the FAA, no substantial impacts to air quality will occur.

Development Alternatives

The Airport will be classified as a general utility airport under each development alternative and, using a high-forecast scenario (Appendix A, Table 1B), is expected to increase annual airport operations to 53,800 by the end of the planning period (2020). However, based on the FAA procedures, Morey Airport will not require an air quality analysis because it will be classified as a general aviation facility with an annual operations forecast of less than 180,000.

Construction-generated emissions and dust produced during implementation of the proposed airport improvements can effect air quality but are considered temporary and not substantial. Potential construction-related air quality impacts are discussed later in this chapter under subsection 4.20.2, *Construction Impacts*.

Pursuant to FAA Order 5050.4A, the 1982 Airport Act requires that Airport Improvement Program applications for projects involving airport location, runway location, or a major runway extension shall not be approved unless the governor of the state in which the project is located certifies that there is "reasonable assurance" that the project will be located, designed, constructed and operated in compliance with applicable air and water quality standards. Air quality certification in accordance with the Act will be required and will be pursued during the final environmental document process. A letter from the WisDOT-Bureau of Aeronautics included in Appendix E indicates we are confident we will get that letter from the Governor. A copy of the certificate will be included in Appendix E of the Final EA.

4.6 WATER QUALITY

Pursuant to FAA Order 5050.4A, the 1982 Airport Act requires that Airport Improvement Program applications for projects involving airport location, runway location, or a major runway extension shall not be approved unless the governor of the state in which the project is located certifies that there is "reasonable assurance" that the project will be located, designed, constructed and operated in compliance with applicable air and water quality standards. Water quality certification in accordance with the Act will be required and will be pursued during the final environmental document process. A letter from the WisDOT-Bureau of Aeronautics included in Appendix E indicates that we are confident we will get that letter from the Governor. A copy of the certificate will be included in Appendix E of the Final EA.

Water quality concerns related to the proposed expansion of Morey Airport include increased potential for surface water runoff and soil erosion, pollution control, storage and handling of fuel and other petroleum products, domestic sewage disposal, and potable water supply.

4.6.1 Surface Runoff and Soil Erosion

Impervious surfaces such as rooftops, paved parking lots, roadways, and runways are specific elements that may affect the quantity and quality of runoff. Surface water runoff from paved surfaces is classified as non-point source pollution, indicating that the runoff flows off all portions of the paved surface, rather than from a specific point or outlet. Storm events can cause the oil, grease, and other chemicals and materials that may have accumulated on paved surfaces to wash off into the surrounding soil or drainage systems. This non-point source pollution can have an impact on water quality and aquatic life by carrying sediment and chemical contaminants into Pheasant Branch Creek.

No Action Alternative

No additional impervious surfaces will be created under this alternative, therefore, the volume of surface runoff from the site will not increase. However, as there currently are no stormwater control features at the site, untreated stormwater will continue to reach Pheasant Branch Creek, which may potentially impact water quality and/or aquatic organisms.

Development Alternatives

Implementation of the development alternatives will increase the amount of impervious surfaces and therefore surface water runoff at Morey Airport. Changes in impervious area and preliminary estimates of stormwater runoff (for a 10-year event) associated with each alternative are presented below in Table 4F. Preliminary estimates of existing and post-development runoff volumes, associated with the project area shown in Exhibit 2, were compared using the Rational Method as outlined in the WDOT's Facilities Development Manual (Ch. 13, Sec. 10, Subj. 5). However, because detailed information necessary to refine runoff estimates (e.g., detailed site topography, final grading plans for alternatives, etc.) was not available, these values should be used for comparative purposes only. Calculations of runoff volumes are presented in Appendix F.

Based on these preliminary calculations, the development alternatives are expected to increase stormwater flow during a 10-year event by less than 20% over existing conditions at the site (Table 4F).

Table 4F. Comparison of Stormwater Runoff During a 10-Year Event for the Development Alternatives			
ALTERNATIVES			
Attributes	**Existing Conditions (No Action)**	**3F-Modified**	**3G (Preferred Alternative)**
Impervious Area (ac)	4.74	20.31	21.02
Estimated Runoff (cfs)	121	142	143
% Increase in Runoff over Existing Condition	-----	18%	19%

Given the proximity of the site to Pheasant Branch Creek, the project may temporarily impact water quality in the creek during the construction period by increasing turbidity and sedimentation. These potential impacts can be minimized by the use of Best Management Practices (BMPs) during construction. Temporary impacts are further discussed under the *Construction Impacts* section (Section 4.20) of this chapter.

Long-term water quality in the creek may also be impacted as a result of proposed improvements. The drainage area of Pheasant Branch Creek, upstream from Airport Road, is 9.61 square miles (USGS, 1983) while the total drainage area of Pheasant Branch Creek is 22.7 square miles. As such, the project area (300 acres or 0.47 square miles) consists of only approximately 2% of the total drainage area of Pheasant Branch Creek north of Airport Road. The additional flow due to the development alternatives is not anticipated to have a substantial effect on the quantity or quality of water in Pheasant Branch Creek provided stormwater control features such as treatment swales and detention basins are implemented.

Mitigation

Exhibit 15 indicates the areas proposed for mitigation of stormwater impacts created by the addition of impervious area. The majority of stormwater will be directed to areas north of the runway where infiltration rates are greatest due to coarser subsoils.

4.6.2 Pollution Control

The increase in runoff caused by the increased impervious area generally requires that a detention facility be developed to allow for a reduction in peak discharge and sediment removal. This modified discharge would be similar to that resulting under existing conditions. Since this project involves air traffic, the use of detention basins and/or swales is preferred over retention basins or other permanent bodies of water. Other options include using a series of ditch checks along the swales leading away from the airport to trap sediment. This type of vegetated open channel system will provide some measure of water quality improvement for water draining from the area during normal use. By having ditch checks leading away from the site, maintenance personnel can clean out these areas as needed and insure that surface water quality improvements are maintained. Ground water quality will be maintained through proper design, construction and maintenance of the airport's drainage facilities.

In addition, because the proposed alternatives will involve impacts to more than one acre of land, the City of Middleton and all contractors must abide by the NPDES requirements related to construction activities. These include the preparation of a *Notice of Intent, Storm Water Pollution Prevention Plan*, and the receipt of a *General Permit* specifically for construction activities prior to their initiation.

No Action Alternative

There are no formal spill and leak containment measures or stormwater control devices currently in existence at the airport. Therefore, the No-Action Alternative has the potential to contribute to water quality impacts from storage and handling of potential pollution-causing materials.

Development Alternatives

While the Development Alternatives have the potential to result in impacts to water quality, with proper design of the facility's drainage system, conformance with BMPs, and compliance with all necessary permits, including NPDES, these impacts are not expected to be substantial.

Mitigation

The Wisconsin Department of Natural Resources (WDNR), in their comment letter dated April 4, 2001 (Appendix D), expressed concern regarding runoff of potentially hazardous materials resulting from spills and leaks of fuel and engine fluids in runoff from paved operational surfaces (Note: refueling areas were also raised as a concern by WDNR, and are addressed in the following section). Other than spills due to catastrophic aircraft accidents, which are likely to be of very limited frequency, operational surfaces are unlikely to be a substantial source of pollutants in runoff. Nevertheless, ditch checks and lining the initial segments of swales

(immediately adjacent to operational surfaces) with low-permeability material is expected to adequately facilitate the recovery of spillage and prevent infiltration of leakage of polluting substances to the water table.

4.6.3 Storage and Handling of Fuel, Petroleum Products, Solvents, Etc.

Spills, leaks and other releases of hazardous materials into the local environment can be concerns at airport facilities due to on-site fuel storage, fueling activities, and maintenance of aircraft. Storm water flowing over impervious surfaces has the potential to carry petroleum product residues off site and into surface water systems if not controlled. The most critical concern, however, would be spills or leaks of hazardous substances that could infiltrate through the soil and contaminate groundwater. Federal and State laws and regulations have been established to safeguard these resources from such facilities and activities. These regulations include standards for storage tank design and containment.

No Action Alternative

There are no formal spill and leak-containment measures, or storm water control devices currently in existence at the airport. Therefore, this alternative has the potential to contribute to water quality impacts from storage and handling of potentially hazardous materials.

Development Alternatives

The development alternatives are not expected to result in substantial water resource impacts from the storage and handling of potentially hazardous materials. A new aircraft maintenance facility is proposed under these alternatives, as well as the relocation and design of existing fuel storage facilities. These materials will be handled and contained at the new facility such that spills and leaks are avoided. Accidents in storage and handling activities will be addressed through development of a management plan that uses the airport's stormwater system as a focus for action. The fueling area is proposed to be located south of the runway where subsoil infiltration rates are lowest. In addition, the fueling area will be designed to facilitate recovery of spilled fuel, before it enters stormwater detention areas that are unlined. Provided that proper handling procedures and containment facilities are adhered to, no water quality impacts are anticipated from the use and storage of fuel, other petroleum products and solvents.

No de-icing operations are currently conducted and none are anticipated with the development alternatives. Therefore, potential impacts often related to de-icing chemicals will not be an issue.

4.6.4 Domestic Sewage Disposal

Wastewater generated from restrooms is currently discharged to the Airport's private septic system. With either development alternative, the City of Middleton will supply municipal sewage collection and treatment to the proposed airport facilities.

No Action Alternative

This alternative would require the current private septic system to be maintained. The integrity of the existing system is unknown and would need to be evaluated for potential leakage and

subsequent environmental impacts. As such, potential impacts to water quality resulting from this alternative, and the need for mitigation, are unknown at this time.

Development Alternatives

As discussed, the City of Middleton will extend the municipal sewage collection system to the airport with implementation of the development alternatives. The development alternatives are not expected to have a substantial impact on the use and capacity of the municipal sewage treatment facility. Sewage generated by the City of Middleton is treated by the Madison Metropolitan Sewage District (MMSD). Each development alternative may result in slight increases in the production of wastewater as a result of the projected increase in operations (compared with the No-Action Alternative) and may also result in some indirect, cumulative impacts as a result of increased business activity in the community. However, MMSD would be expected to accommodate these increases with no further capacity improvements. Therefore, no mitigation measures are warranted.

4.6.5 Potable Water Supply

Potable water is currently supplied to the Airport through the use of a private well located on-site. As part of the proposed improvements, the City of Middleton will supply municipal water service to the site.

No Action Alternative

Potable water will continue to be provided to the Airport from the existing private well and a substantial increase in demand is not anticipated under this alternative. As such, a substantial impact to potable water supply will not occur.

Development Alternatives

The City of Middleton will supply potable water to the Airport as part of the proposed development. Mr. Toby Ginter, the City of Middleton Utility Manager, indicated there is plenty of capacity to accommodate the proposed expansion. As such, impacts to water supply would not be anticipated as a result of any of the development alternatives.

4.7 DEPARTMENT OF TRANSPORTATION, SECTION-4 (f) LANDS

Paragraph 47e of *FAA Order 5050.4A* provides the following:

> (7)(a) Section 4(f) provides that the Secretary shall not approve any program or project which requires the use of any publicly-owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or any land from an historic site of national, state, or local significance as determined by the officials having jurisdiction thereof unless there is no feasible and prudent alternative to the use of such land and such program includes all possible planning to minimize harm.
>
> (7)(b)... When there is no physical taking but there is the possibility of use of or adverse impacts to Section 4(f) land, the FAA must determine if the activity associated with the

proposal conflicts with or is compatible with the normal activity associated with this land. The proposed action is compatible if it would not affect the normal activity or aesthetic value of a public park, recreation area, refuge, or historic site. When so construed, the action would not constitute use and would not therefore, invoke Section 4(f) of the DOT Act.

There are no 4(f) lands located within the area proposed for airport improvements. The only 4(f) lands located in the project vicinity are the soccer fields located just southwest of the airport and south of Airport Road. This public recreation area is owned by the Town of Middleton but lies within the corporate limits of the City of Middleton.

No Action Alternative

Under this alternative, the airport will continue to operate adjacent to the soccer fields. Operation of the airport is not known to affect normal activities of these fields.

Development Alternatives

The proposed development alternatives are not expected to affect the normal activity or aesthetic value of the soccer fields. As discussed in Section 4.1, the 65 DNL noise contour will remain on airport property. Noise levels less than 65DNL are considered to be compatible with this landuse.

4.8 HISTORIC, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

The State Historical Society of Wisconsin (SHSW) was contacted to determine if the proposed airport improvements would impact cultural resources. The SHSW responded they were reviewing the project as required for compliance with Section 106 of the National Historic Preservation Act and 36 CFR Part 800: Protection of Historic Properties, the regulations of the Advisory Council on Historic Preservation governing the Section 106 review process (Appendix D). In this correspondence, the SHSW recommended that a qualified archeologist survey areas of new ground disturbance.

The SHSW *Museum Archaeology Program* completed an archaeological investigation for the proposed airport expansion. No archaeological sites were identified, however, one Native American artifact was recovered. This artifact, an early Archaic projectile point, was considered to be an isolated find and no additional archaeological investigation was recommended. There are no other features on the project property considered to have historical significance.

Native American tribes were contacted for input in the treatment of cultural resources that may be associated with the site and information regarding archaeological sites in the project area (Appendix D). Although their responses are not available for the Preliminary EA, their comments will be incorporated into the Final EA document.

No Action Alternative

No additional construction is proposed as part of this alternative, therefore impacts to archaeological or cultural resources will not occur.

Development Alternatives

Due to the lack of cultural resources present in the project area, and the findings from the SHSW survey, no adverse impacts are expected to result from the proposed development alternatives. Therefore, no mitigation is warranted.

4.9 BIOTIC COMMUNITIES

Biotic communities refer to the combination of flora and fauna in a given area and are described by the composition of species present. Factors such as climate, hydrology, soils and human intervention all play a part in the biotic community makeup. Impacts to biotic communities are based on whether a proposed action would cause a minor permanent change of existing habitat or whether it would involve the removal of a sizeable amount of habitat. Impacts are also based on whether the habitat supports rare species or the community itself is rare or sensitive. The overall size and carrying capacity of the remaining habitat is another consideration.

The U.S. Fish and Wildlife Service and the WDNR were contacted for information regarding sensitive biotic communities in the vicinity of Morey Airport. Their responses are included in Appendix D. The response letters are discussed further in the *Endangered and Threatened Species* section (Section 4.10) of this document. Additional information was obtained during a wetland delineation conducted in late August 2000 and a site reconnaissance conducted on September 21, 2000 by URS Corporation.

4.9.1 Vegetation

The existing vegetation within the area of proposed airport improvements is the result of substantial disturbance by past and present human activities. The majority of vegetation on the airport property consists of cultivated agricultural crops and mowed meadow land (quack grass, timothy, brome grass, meadow foxtail, etc.) The area adjacent to Pheasant Branch Creek and its tributary drainage ditches primarily consists of reed canary grass interspersed with box elder trees; and buckthorn, elderberry, sandbar willow, honeysuckle and gray dogwood shrubs. Other ground layer species include smooth brome grass, Canada thistle, common milkweed and stinging nettle. Depressional wetlands are described in detail in the Wetlands and Waters of the U.S. section (Section 4.11). Certain parameters for vegetation types and height need to be maintained at airports for safety purposes. Therefore, the vegetation of the airport is continually influenced by human activity.

No-Action Alternative

No construction is proposed under this alternative. As such, additional impacts to vegetation beyond normal maintenance activities will not occur.

Development Alternatives

Vegetation will be eliminated in the area of the new runway and ancillary features under the development alternatives. Agricultural crops and maintained grasses along the existing runway will primarily be impacted, although Alternatives 3F Modified and 3G will also impact some of the ornamental trees and weedy herbaceous vegetation on the former Bruce Company nursery (east of existing parking lot). It is anticipated that areas along the proposed runway will be planted to grasses after construction and maintained. As discussed in the *Wetland and Waters of the U.S.* section (Section 4.11), these alternatives will also impact approximately 9 to 10 acres of degraded wet meadow on the site, although compensatory mitigation will offset these losses. Implementation of the development alternatives will not substantially impact site vegetation.

4.9.2 Wildlife

In general, airports are maintained to discourage the use of airport property by wildlife and limit the amount of available habitat. Wildlife strikes to civil aircraft are a serious economic and safety problem in the United States. A report by the FAA shows that wildlife strikes to U.S. civil aircraft increased by more than 50 percent from 1991 through 1997 (Flight Safety Foundation, 1999)

Wildlife within the airport vicinity consists of relatively mobile mammal and bird species that have adapted to highly disturbed habitat and human activity. Wildlife habitat and the species of animals likely to inhabit the airport property, as described in the *Affected Environment* chapter, are primarily limited to the undisturbed areas located along Pheasant Branch Creek, drainage ditches and the former Bruce Company property to the east. In addition, there are some narrow strips, approximately 25 feet wide, adjacent to the runways that are not mowed.

Due to the presence of wet drainage ditches and wetlands, and the proximity of Pheasant Branch Creek, various species of reptiles and amphibians (snakes, frogs and toads), and birds with an affinity to water such as wading birds (herons, cranes, plovers, sandpipers, etc.), and waterfowl (ducks and geese) are expected to frequent the airport area. However, due to the lack of contiguous, quality habitat within and surrounding the airport area, large numbers and a diversity of wildlife are not expected. Most wildlife occurrences on or over the airport are expected to be transient in nature.

The cultivated (corn) portions of the airport property provide a seasonal cover and food source that attracts some species of wildlife. However, there is similar agricultural land use on adjacent properties that should reduce the likelihood of wildlife concentrations on airport property.

No Action Alternative

The Airport will continue to operate at existing levels with no additional construction proposed for this alternative. Farming is anticipated to continue on land adjacent to the runways. As such, no additional impacts to wildlife are anticipated.

Development Alternatives

Areas to be directly impacted by proposed construction activities for the development alternatives are predominantly agricultural and of limited wildlife value. The reduced amount of

wildlife species utilizing these areas should be able to relocate to adjacent agricultural areas. Additionally, a portion of Pheasant Branch Creek would need to be realigned for the development alternatives. Realignment of the stream channel, which is discussed further in Section 4.11, *Wetlands and Waters of the U.S.*, will disturb existing habitat and may temporarily displace wildlife species such as reptiles and amphibians, wading birds, and waterfowl. However, existing areas located immediately upstream and downstream of the realigned segment provide similar habitat. Therefore, the impacts to wildlife are expected to be temporary while the new streambed stabilizes and the stream bank becomes vegetated.

As discussed in Section 4.18, additional lighting associated with the development alternatives should not substantially impact wildlife resources due to the limited duration and intensity of the proposed lighting system. Further, as discussed in Section 4.1, noise is not projected to substantially increase over existing levels and should not adversely impact wildlife in the vicinity of the site.

4.9.3 Environmental Corridors

Environmental corridors are defined by the Dane County Regional Planning Commission (DCRPC) as continuous systems of open space in urban and urbanizing areas that include environmentally sensitive lands and natural resources requiring protection from disturbance and development, and lands needed for open space and recreational use. These resources are worthy of note because of their potential value to wildlife, water quality, aesthetics, and other natural resource based elements.

In the vicinity of Morey Airport, an environmental corridor is essentially defined by the 100-year floodplain of Pheasant Branch Creek within the Urban Service Area of the City of Middleton (Exhibit 8). As such, the Airport currently exists within a designated environmental corridor.

No-Action Alternative

The No-Action Alternative will result in no further construction, therefore additional impacts to the environmental corridor will not occur.

Development Alternatives

The impact associated with the development alternatives will be in the form of expanding airport facilities within the environmental corridor. As long as modifications to the floodplain, wetlands or zoning are approved by the WDNR, the change to the environmental corridor will be considered minor (DCRPC Fact Sheet, 1997). Minor changes generally do not have the potential for substantial impacts on water quality, and do not require DCRPC approval. The DCRPC should be notified of the official local action (resolution, plat or development plan approval, etc.) changing the corridor.

Mitigation

Compensation for changes to the floodplain and wetland components of the environmental corridor resulting from the development alternatives, are addressed under each of those sections of this chapter. Development of plans and specifications will be coordinated with the

appropriate resource agencies to minimize potential impacts. As such, the resultant changes will be considered minor and permissible.

4.9.4 Scientific and Natural Areas

There are no designated scientific and/or natural areas located in the vicinity the Airport; therefore, the No Action and development alternatives will not impact these areas.

4.10 ENDANGERED AND THREATENED SPECIES

As noted under the *Biotic Communities* section (Section 4.9), the USFWS and the WDNR were contacted for information regarding potential impacts to flora and fauna, particularly whether there are any known endangered or threatened species inhabiting the area (Appendix D). Correspondence received from the USFWS indicated that four federally listed threatened or endangered species occur in Dane County. These species include the bald eagle, prairie bush-clover, eastern prairie fringed orchid and Higgin's eye pearly mussel. However, the USFWS indicated that "due to the nature and location of the proposed activities, we conclude that the above listed species will not be affected. This precludes the need for further action on this project as required by the 1973 Endangered Species Act, as amended."

The WDNR identified five state-listed species (but did not specify which ones), and a number of sensitive communities associated with the wetland complex of Pheasant Branch Marsh and Creek. These areas are located downstream from the reach of Pheasant Branch Creek that is adjacent to the Airport. The WDNR also indicated that due to the disturbed nature of the reach that flows past the project area, it is unlikely that any listed species, natural communities or State Natural Areas would be impacted by the proposed Alternatives.

No Action Alternative

This alternative would not result in any action taken in the project area and therefore would not adversely affect rare species or special natural features.

Development Alternatives

Rare species or special natural features are not known to exist in the project area and will not be directly impacted by activities proposed for any of the development alternatives. However, the potential exists for state-listed threatened/endangered species and rare communities associated with Pheasant Branch Creek downstream of the site to be indirectly impacted by development alternatives. These species or communities may be impacted if the alternatives substantially alter hydrologic conditions or water quality in the creek. The City is committed to minimizing runoff from the site by implementing stormwater features that promote infiltration. This will reduce the potential for downstream flooding and maintain water quality in the creek. Therefore, potential indirect impacts to sensitive species or communities associated with Pheasant Branch Creek downstream of the site are not likely to occur.

4.11 WETLANDS AND WATERS OF THE U.S.

The U.S. Army Corps of Engineers (ACE) regulates the discharge of dredge and/or fill material into waters of the United States, including wetlands, under Section 404 of the Clean Water Act. Water quality certification of permitted filling activities is required from the WDNR under Section 401 of the Clean Water Act, to validate the permit. This process will occur during design permitting.

Wetlands are defined in *Executive Order 11990, Protection of Wetlands*, as "those areas that are inundated by surface or groundwater with frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction." Wetlands exhibit three characteristics: wetland hydrology, plants adapted to wet conditions, and hydric soils.

A wetland delineation was conducted by URS Corporation in August 2000 to determine the boundaries of wetland areas likely to be impacted by the proposed alternatives. An additional portion of the site, in the area potentially affected by the proposed relocation of the turf crosswind runway, was examined for wetlands in April 2001 following the identification of Alternative 3G. Prior to the field survey, URS scientists reviewed NRCS wetland inventory maps, Dane County Soil Survey map and soil descriptions, Hydric Soils List for Dane County, Wisconsin Wetland Inventory map, USGS and site-specific topographic mapping, and aerial photographs of the airport area.

Wetlands were identified and delineated at the site based on: methods described in the *1987 Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987); related clarifying memoranda from Corps headquarters (7 October 1991 and 6 March 1992), and *Guidelines for Submitting Wetland Delineations in Wisconsin to the St. Paul District Corps of Engineers* (USACE Public Notice, 22 May 1996). The On-Site Routine method described in the 1987 *Manual* was used to determine the location of wetland boundaries during the site visits. The wetland boundaries that were delineated in August 2000 were surveyed and sufficient information was obtained to constitute a jurisdictional delineation of wetland area. The remaining wetland areas were transferred to the plans from a field sketch map (aerial photo base).

Several disconnected depressional wetlands and narrow fringe wetlands along Pheasant Branch Creek and its tributary ditches, were identified and mapped within the area of potential impact for the various alternatives evaluated. Wetlands identified within potentially affected areas are shown on Exhibit 3. A total of approximately 25 acres of wetlands were identified within this area. Mr. William Sande of the ACE, Waukesha field office, visited the site on October 12, 2000 and issued a letter confirming jurisdiction over wetlands as delineated by URS in August 2000 (Appendix D). The state and federal jurisdictional status of all affected wetlands on the airport property (including those delineated in April 2001) will be re-evaluated during the design phase to account for recent regulatory changes.

Certain features regarding the natural and land use history of the airport area are useful in understanding current characteristics, functions and values. Morey Airport lies within a former glacial lakebed, which appears to have drained toward Black Earth Creek (rather than toward Lake Mendota, as it does today). The extensive wetlands that once occurred within this basin likely contained no defined drainage channels as there are today. The North Fork of Pheasant

Branch Creek and its tributaries are man-made channels constructed to drain the wetlands for agriculture. Existing depressional wetlands are remnants of the extensive former wetlands, which likely occur in areas where the permeability of underlying subsoils is lower than surrounding areas.

Wetlands and waterways within the study area are either of limited extent or linear in nature, and have limited buffering from adjacent uses. These features, in combination with the lack of structural diversity and isolated nature of many of the depressional wetlands on site, limit the significance level of many of the functions and values that can be attributed to water resources in the study area.

As noted in the *Biotic Communities* section (Section 4.9), floral diversity, structural habitat diversity and resultant wildlife habitat values at the site are all low. Exceptions to this generalization occur along Pheasant Branch Creek and in the wetland located between the existing paved and east-west turf runways, west of the turf crosswind runway (Exhibit 3). Wildlife habitat value in these areas is moderate. Wetlands along Pheasant Branch Creek and its larger tributaries provide an important travel corridor for wildlife movement; the other wetland is temporarily flooded and has favorable interspersion characteristics that provides nesting, feeding and loafing habitat for waterfowl.

Fish habitat is non-existent in all site wetlands, except along Pheasant Branch Creek and its larger tributaries. These areas support habitat for forage fish populations (minnows and other species that provide food for wildlife). However, aquatic habitat is not currently adequate to sustain a sport fishery.

Functions related to water quality and quantity maintenance are among the most substantial for wetlands in the project vicinity. The flood and stormwater attenuation capability of most of the identified wetlands is moderate due to their location within a watershed subject to new development, agricultural runoff, "flashy" flooding conditions (high peak flows of short duration), and their dense vegetation. However, their linear or largely isolated configurations limit the overall effectiveness of functional performance with respect to floodwater attenuation. Functional effectiveness for water quality protection is moderate based on the location of wetlands adjacent to paved surfaces and down-gradient of agricultural runoff. Such effectiveness is limited, however, by the small size and relatively short residence time for settlement of sediments and associated pollutants.

The shoreline protection function is provided along Pheasant Branch Creek to a limited degree by wetland vegetation growing along its banks.

Infiltration of precipitation and stormwater that collects in wetlands in the study area likely provides some support to baseflow in Pheasant Branch Creek, and some may recharge the regional aquifer. However, the airport is not within the area identified by Hunt (2000) as the capture zone for the Frederick Spring that feeds the Pheasant Branch Marsh Conservancy.

Aesthetic, recreation and education values of project area wetlands are low for a number of reasons. The wetlands are not of unique or special nature, and access to them for study or enjoyment is limited for airport safety reasons. Recreational, wildlife and fisheries related values are of little note. The identified wetlands can be difficult to distinguish from adjacent upland meadow and agricultural land.

Wetland impacts include direct and indirect effects. Direct impact would be the result of a physical taking of all or a portion of a wetland area through dredging or filling. Portions of the proposed new runway and taxiway alignment that fall within wetlands, and grading in wetlands for the runway safety zone constitute direct impact.

Indirect impacts are those that may occur as a result of construction-related activities and normal airport operations where the functional value of the remaining wetland area is altered by a change in on-site hydrology and/or quality and quantity of storm water runoff.

No Action Alternative

The No Action alternative will not result in additional impacts, either direct or indirect, to wetlands in the vicinity of Morey Airport. However, many of the wetlands adjacent to the existing runway are currently subject to impacts due to stormwater runoff, which will continue under this alternative.

Development Alternatives

Alternatives 3F-Modified and 3G will result in approximately 9 and 10 acres, respectively, of direct impact to wetlands located within the area of proposed improvements. Both alternatives involve rechannelizing a short segment of Pheasant Branch Creek through a culvert under the runway. Relocation of the creek around the west end of the runway was evaluated, but found to be infeasible due to agricultural impacts and conveyance issues (e.g. incompatible elevations). Implementation of either of these development alternatives may result in indirect impacts to the hydrology of wetlands adjacent to filled areas. However, Alternative 3G may offer additional opportunities for wetland restoration through the removal of portions of the existing north-south turf strip that bisect wetlands.

Mitigation

There are typically three ways to approach wetland mitigation: avoidance, minimization and compensation. Avoidance is accomplished by redesigning a project to a new location outside of a wetland area. Minimization is accomplished by redesigning a project to reduce the amount of wetland area impacted. Compensation results when wetland impacts can not be avoided or minimized and the functional value of the impacted wetland is replaced or recreated elsewhere. This mitigation can occur in the form of enhancing the functional value of an existing wetland or constructing a new wetland within the vicinity (or watershed) of the one being lost.

Complete wetland impact avoidance is not possible due to the scattered nature of site wetlands and the design needs of proposed runway improvements. However, under both development alternatives, impacts to identified wetland areas will be minimized to the greatest extent practicable by limiting fill zones and providing adequate hydrology for remaining wetlands. Replacement ratios will be determined according to guidelines set forth in the WisDOT/DNR Cooperative Agreement. If on-site or near-site mitigation is not feasible, wetland mitigation will occur at a mitigation bank, according to the guidelines established in the WisDOT Wetland Mitigation Banking Technical Guidelines. Given the significance of water quality and quantity related functions, which are relatively straight forward to replace, it may be possible to provide compensation on-site without creating wildlife attractants (e.g., wet meadows with short

detention periods). However, if the resource agencies determine that the development of functions not otherwise provided by wetlands in the area (i.e., wildlife habitat, floral diversity, or aesthetic/recreation/educational value) would be the most ecologically meaningful option, then off-site mitigation would be more appropriate. The ratio of replacement acreage to acreage of affected wetlands is likely to range between 1.0:1.0 and 2.0:1.0, depending on location (on or off-site), probability of mitigation effectiveness (success in meeting mitigation objectives), and the timing of mitigation implementation (in advance of impact or concurrent with impact). Proposed wetland mitigation areas will comply with *FAA Advisory Circular 150/5200-33, Hazardous Wildlife Attractants on or Near Airports.* This Advisory Circular provides criteria for the location of wetland mitigation areas within 10,000 feet of an airport and indicates that mitigation projects that may attract hazardous wildlife be sited outside of the appropriate separation requirements.

In order to address the potential of on-site wetland mitigation to attract hazardous wildlife, the United States Department of Agriculture - Wildlife Services (USDA) conducted a wildlife hazard assessment. The USDA found that some of the existing wetlands provide wildlife habitat and therefore pose a potential wildlife hazard. However, if the airport improvement project and associated on-site mitigation project is completed as proposed, the following recommendations could be implemented to reduce wildlife hazards to aircraft using Morey Field:

- Land developed as wetland mitigation should be located as far as possible from proposed runways 10-28 and 01-19.
- Vegetation replanted within the mitigation area should consist of a very limited number of species to avoid habitat diversity that can attract wildlife that may pose a hazard to aircraft.
- Vegetation in the mitigation area should be mown to maintain a height of 10-14 inches to minimize the area's attractiveness to species of wildlife that may pose a hazard to aircraft.
- A wildlife monitoring program and an aggressive wildlife harassment/dispersal program should be in place with personnel assigned to harass wildlife observed on the airfield. The employees should be knowledgeable in bird identification and provided with and trained in the use of pyrotechnics (specialized fireworks) and other harassment devices.
- If ring-billed gulls or other migratory birds continue to use the airfield despite an aggressive harassment program, the airfield should apply for a migratory bird depredation permit to allow lethal reinforcement of harassment techniques. USDA-Wildlife Services can assist with this application process.

In addition, if the airport improvement project is completed the USDA anticipates a decrease in wildlife attractants on the airfield as a result of removing trees along Pheasant Branch Creek and from the former Bruce Company property, and because low-growing vegetation within the mitigation area will replace existing agricultural crops and tall grass.

Exhibit 15 indicates areas on the airport property that are currently proposed for compensatory mitigation of water resource impacts. A short segment of Pheasant Branch Creek would be

reconfigured into a meandering channel within a broad, low floodplain to replace lost wetland area, and to improve aquatic habitat and water quality/quantity functions. The culvert under the runway would be sized to allow passage by certain affected wildlife groups. Areas between the runway and taxiway may be designed as wetlands that detain and infiltrate stormwater in order to reduce quantity and improve quality of stormwater runoff (incorporating adequate protection measures for dealing with spills and/or leaks of potentially hazardous materials draining from operational surfaces). Additional wetlands will be restored north of the runway to compensate for unavoidable direct impacts to wetlands. The final design process for the project will address details including hydrology and water quality protection.

4.12 FLOODPLAINS

Floodplains are defined in *Executive Order 11988, Floodplain Management*, as "the lowland and relatively flat areas adjoining inland and coastal waters...including at a minimum, that area subject to a one percent or greater chance of flooding in any given year" (also known as the 100-year floodplain). Floodplains include both floodway and flood fringe area. The floodway is the channel and adjoining land required to pass the regional flood discharge. This area is typically associated with flowing water. The flood fringe is an area between the flood elevation and the floodway limits where flooding may also occur, but is less frequent.

The State of Wisconsin regulates floodplain management pursuant to *Chapter 30* of the State Statutes under *Wisconsin Administrative Code NR 116*. This regulation indicates that development within the flood fringe may occur with certain restrictions. For example, the first floor elevation of a structure must be at least two feet above the 100-year flood event level. Less restrictive limitations are required for parking lots, runways, etc. However, the FAA advises that all paved surfaces associated with an airport be constructed above the floodplain elevation in order to protect their structural integrity and, in the case of aircraft parking aprons, to prevent property loss.

Information regarding the Pheasant Branch Creek floodplain, with its associated floodway and flood fringe, was obtained from FEMA Flood Insurance Rate Maps and a more-detailed floodplain study conducted for the City of Middleton (R. S. Grant, 1997). Based on this information, the floodplain occurs up to the existing main runway, which acts as a boundary (Exhibit 8). A ditch spoils berm located along the east bank of Pheasant Branch Creek provides some protection for the airport from the 100-year flood event, however, flood waters enter the airport property from the northern portion of the project area where berms are lower.

No Action Alternative

As discussed, much of the land in the vicinity of the Airport is considered part of the 100-year floodplain. As no filling, grading or construction is proposed for this alternative, additional floodplain impacts are not anticipated. However, many portions of the existing runways and aircraft parking areas are below 100-year floodplain elevation. This decreases airport utility by interrupting transportation operations during flood conditions.

Development Alternatives

Both development alternatives would require cutting through the berm to extend the runway across Pheasant Branch Creek into the unprotected floodway located west of Pheasant Branch Creek. This stream crossing would require a properly sized culvert to prevent excessive backwater effects and enough fill material adjacent to either side of Pheasant Branch Creek to raise the runway above the 100-year flood elevation.

The majority of the proposed runway and facilities for both development alternatives is located in the existing floodplain (Exhibit 15). All proposed buildings and runways occurring in the floodplain will be elevated above the flood elevation. However, the existing turf crosswind runway is not proposed to be elevated under Alternative 3F-Modified. Therefore, Alternative 3G will have more utility during flooded conditions under certain wind conditions and for training purposes, than Alternative 3F-Modified. The following fill amounts in the floodplain are required for each development alternative:

- Alternative 3F-Modified: Approximately 58 acres
- Alternative 3G: Approximately 60 acres

FAA Order 5050.4A classifies floodplain encroachments as significant if they would result in one or more of the following impacts:

- A considerable probability of loss of human life;
- Likely future damage associated with the encroachment that could be substantial in cost or extent, including interruption of service on or loss of a vital transportation facility;
- A notable adverse impact on natural and beneficial floodplain value.

Loss of human life, property damage or interruption of transportation is unlikely to occur under these proposed development alternatives; however, flood storage capacity will be affected. According to the City of Middleton Floodplain Zoning Ordinance (revised March, 1996), aircraft landing strips are considered an acceptable development within the 100-year floodplain. Provided the runway and other airport facilities are designed to minimize floodplain impacts and mitigation measures are developed to offset unavoidable impacts, and these measures are accepted by the appropriate regulatory agencies, both development alternatives should have a limited impact on the floodplain.

Raising the elevation of the primary runway and its intersection with Pheasant Branch Creek creates an opportunity for public benefit through consolidation of the extensive floodplain on open land to the north of the runway in an area with more rapid infiltration (see Mitigation, below).

Mitigation

Mitigation of floodplain impacts will be coordinated in consultation with the appropriate resource agencies. The mitigation plan will include measures to limit excessive impedance of flood flows and impacts to adjacent off-site agricultural land. The extent of mitigation will be limited only to those floodplain impacts resulting from the proposed airport improvements. Consideration will be given to re-establishing the floodplain north of the new runway through re-grading and water control structure placement, as shown on Exhibit 15. The channel along a

short segment of Pheasant Branch Creek will be broadened to consolidate the existing extensive floodplain into a smaller area directly adjacent to the creek. Opportunities for this type of streamside floodplain expansion/consolidation are limited north of the proposed runway by the configuration of property boundaries relative to the channel, as well as the potential for impact to adjacent agricultural land.

Based on a conversation with WDNR personnel (Appendix D) regarding the concept of relocating the floodplain north of the new runway, it was indicated that they are familiar with the floodplain issues and previous hydrological studies that have been conducted in the vicinity of the airport. As a result, the WDNR believes the conceptual form of mitigation being considered is possible provided that adequate conveyance and storage of flood flow is provided.

Floodplain alterations have already been implemented downstream from the airport (south of Airport Road) to accommodated a developing business park. In addition, State of Wisconsin Statutes, and local zoning ordinances will not allow new construction with the floodplain to substantially raise the backwater of the stream. Further, local and state resource agencies, the City of Middleton and local interest groups are concerned about any additional floodplain impacts to Pheasant Branch Creek. Therefore, any floodplain mitigation proposed must take place on-site.

4.13 COASTAL ZONE MANAGMENT

Morey Airport is not located within the jurisdictional boundary of the State Coastal Management program. Coastal zone areas are located well outside of the project's area of influence. Therefore, impacts to coastal zone resources are not anticipated under the No-Action or development alternatives.

4.14 COASTAL BARRIERS

Morey Airport is not located near or adjacent to coastal zone barrier resources, which consist of undeveloped coastal barrier islands along the Atlantic or Gulf Coasts. These resources are outside of the realm of influence of the airport. None of the alternatives considered would result in an impact to coastal barrier resources.

4.15 WILD AND SCENIC RIVERS

The *Wild and Scenic Rivers Act* (PL 90-542, as amended) identifies those river reaches eligible to be protected under the Act as free flowing and possessing "...outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values." According to the *Nationwide Rivers Inventory*, there are no rivers within the project site or vicinity of the project area that are protected by the Wild and Scenic Rivers Act, as amended. As such, no impacts to such resources are anticipated as a result of the No Action or the development alternatives.

4.16 FARMLAND

The *Farmland Protection Policy Act* (FPPA) authorizes the Department of Agriculture to develop criteria to identify the effects of Federal programs on the conversion of farmland to

nonagricultural uses. Prime farmland that is not already committed to urban development or water storage, or unique farmland that is of state or local importance is protected by the FPPA. According to *FAA order 5050.4A*, Federal agencies are directed to use alternative actions that could decrease adverse effects and, wherever possible, ensure the project is compatible with state, local or private programs and policies to protect farmland.

Farmland in the vicinity of the site was determined using a 1999 aerial photograph of the airport area to determine the extent of farmland that will be impacted by the development alternatives. Property in active agricultural production was considered and project plans were overlain on the aerial photograph.

Direct impacts to farmland are those which remove the area from even the potential for agricultural production. Direct impacts are considered to occur beneath paved surfaces such as the runway, taxiway, apron, terminal hangars, roadways etc. Indirect impacts occur in areas not being directly converted, but which would no longer be capable of being farmed due to access restrictions. At Morey Airport, indirect impacts are expected to occur to property within the runway safety area, object free area and proposed stormwater retention/infiltration area. The remaining property in the project area, including acquisition areas, is not considered to result in farmland impacts because farming may continue provided it complies with *FAA Advisory Circular 150/5200-33, Hazardous Wildlife Attractants on or Near Airports* and it does not interfere with airport operations.

Coordination with the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) was conducted to determine the degree of farmland impacts. Applicable portions of Form AD-1006, Farmland Conversion Impact Rating were completed and presented to the Dane County NRCS office for their review and assessment. The NRCS determined the project area contains prime farmland and rated the relative value of the farmland to be converted (Appendix C). These values were then added to the Site Assessment Criteria (part VI of Form AD-1006) for each alternative. The total combined score for Alternative 3G was 106 while the score for Alternative F-Modified was 117 points. According to *FAA Order 5050.4A Airport Environmental Handbook*, if the combined score is less than 160 points, it may be assumed there is no significant impact caused by the taking of the farmland at the proposed site, and no further action is required.

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) is required to prepare an agricultural impact statement (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. The AIS is an information and advisory document that describes and analyzes the potential effects of the project on farm operations and agricultural resources but cannot stop a project.

An AIS was prepared by DATCP to assess potential impacts from the preferred alternative (Appendix B). This report included contacting impacted farm owners to document their concerns. Mr. Wayne Wagner of Plane View Farms indicated he would prefer not to lose any farmland, as all their farmland is needed for crop production to support the farm's livestock. He also expressed concern that the drainage ditch that will be culverted under the new runway continue to adequately drain his land. Ms. Emma Meinholz was primarily concerned that construction of the proposed runway may destroy the drain tile outlet to Pheasant Branch Creek that drains her farmland. Based in part on these concerns, the following recommendations were

provided by DATCP to mitigate the potential adverse impacts associated with the proposed project:

- DATCP supports the BOA's plans to lease any land that can be used for cropland to the adjacent farm owners.
- In order to adequately address possible drainage problems that may occur as a result of the project, DATCP recommends that airport officials discuss construction plans with representatives of the Dane County Land Conservation Department during the design process.
- The county conservationist should be consulted to ensure that construction proceeds in a manner that minimizes crop damage, soils compaction and soil erosion on adjacent farmland.
- All farmers and farmland owners should be given advance notice of acquisition and construction schedules so that farm activities can be adjusted accordingly. To the extent feasible, the timing of the acquisitions and construction should be coordinated with them to minimize crop damage and disruption of farm operations.

No Action Alternative

This alternative will not result in additional impacts to agricultural land. No additional easements or land acquisition will be required. Areas currently cropped in the vicinity of the airport are anticipated to remain under agricultural production if this alternative were implemented.

Development Alternatives

The development alternatives will impact prime farmland; however, because the site rating for each alternative is less than 160 points (Appendix C), a substantial impact under the FPPA is not anticipated. Additionally, all development alternatives would require a combination of easements and/or land acquisition of adjacent farmland. Concerns from the adjacent farmers include potential impacts to the farm's existing drainage systems and a reduction in the acreage of cropland. Following the mitigation measures recommended by DATCP (Appendix B) and summarized above, impacts to adjacent farmers will be minimized.

4.17 ENERGY SUPPLY AND NATURAL RESOURCES

Energy requirements at General Utility airports typically consist of electrical usage by lighting and other equipment for airside and land-side facilities, and fuel requirements for aircraft and maintenance vehicles. In addition, fuel will be consumed by construction equipment and energy will be expended in producing materials needed to construct the improvements.

No Action Alternative

No additional construction is proposed under the No-Action Alternative. As such, this alternative is not anticipated to result in a substantial impact to energy supply and natural resources.

Development Alternatives

There are no existing energy production or supply facilities that would be affected by the development alternatives. No impacts to the development of energy resources are anticipated.

Implementation of the development alternatives will result in additional energy demands. Expenditures of labor, fuel, electricity, chemicals, water and other forms of building materials and energy will be necessary to construct the improvements and to provide for operation and maintenance of facilities. The use of nonrenewable resources is considered to be an irreversible impact, since these resources are only renewable over a long period of time. Commitments of labor, fuel and other nonrenewable resources must be made in order to provide continued operation and maintenance of the airport facilities, regardless of further development.

4.18 LIGHT EMISSIONS

There are various sources of lighting present at airports. These sources may include airside facilities such as runway/taxiway lights, landing aids, rotating beacon, approach lights, etc., as well as landside facilities such as security lights, building/hangar lights, parking lot lights, and signage lighting. According to *FAA Order 5050.4A*, lighting impacts are normally not substantial except under unusual circumstances.

At Morey Airport, the main runway (Runway 12/30) is equipped with pilot-activated low-intensity runway and navigation lighting. The pilot activates these lights from their aircraft when landing or departing the airport. Existing flight activity consists of an average of 3 planes per evening; therefore, these lights are infrequently activated during nighttime periods. Currently there are no lighting systems along either of the grassed runways.

Landside lighting currently at Morey Airport is limited and consists of an outdoor sign near the entrance (by the parking lot) and floodlights by the fuel farm, both ends of the hangar and at the office entrance. Currently these landside lights are on continuously at night and are either timer-activated or triggered by the onset of darkness.

No Action Alternative

No changes to the airside or landside lighting systems are anticipated under this alternative; therefore no change in lighting emissions would occur.

Development Alternatives

Under the development alternatives, the runway lighting system will be upgraded to a multi-step medium intensity system to conform with FAA safety and lighting recommendations and standards. Lighting will also be installed along the taxiways, and REILs will be installed at the ends of Runway 30. This lighting system will be pilot activated to minimize the duration of lighting.

There are several homes in the vicinity of the Airport that will be relocated with improvements to Airport Road (proposed 2002). These include the home south of Airport Road across from the parking area and at the intersection of Nursery Drive and Airport Road. Under the development alternatives, the homes nearest to the runway are located approximately 1,100 northeast of the

eastern end of the runway on the bluff (excluding the homes to be relocated). It is estimated that nighttime flights at the airport will increase to an average of 4 operations per evening 20 years after expansion. Due to the relatively low intensity of airport runway lighting, and the limited frequency the lights will be on during evening hours, the runway/taxiway lights for the development alternatives are not anticipated to pose a substantial impact to these residential receptors.

The landside facility lighting can also be linked to the pilot-controlled activation system and programmed to automatically turn on and off at designated times following activation. This will minimize the lighting duration for these facilities. Security lighting will likely be floodlights that are down-turned to minimize the amount of stray light. The proposed landscape berm along Airport Road will act to reduce light exposure. As such, facility lighting should not substantially affect residential receptors for the development alternatives.

Lighting levels can affect various wildlife by disrupting routine activities such as feeding, resting, breeding, etc. Nocturnal animals such as opossum, raccoon, bats, etc. are typically most affected by nighttime lighting. As the majority of the project area is agricultural and provides limited wildlife habitat, a diverse assemblage of wildlife does not exist at the site. Additionally, the intensity of the proposed lighting system will not substantially increase and the duration of lighting in nighttime periods will be minimized. Therefore, the proposed increase in lighting for all development alternatives will not substantially impact wildlife.

4.19 SOLID WASTE IMPACTS

Construction of new airports or expansion of existing airports generate solid waste during the construction phase and often generate a substantial amount of waste after the facility is built. Depending upon the capacity of local landfills, this may adversely impact these landfills.

The presence of sanitary landfills in the vicinity of airports is a concern because they can attract scavenger birds that may increase the potential for bird strikes. *FAA Advisory Circular 150/5200-33* considers putriciable waste landfills to be incompatible with aviation activity if located within 10,000 feet of an airport serving jet aircraft or within five miles of runway approaches.

No Action Alternative

Under this alternative, the amount of solid waste generated at the airport is not anticipated to increase. In fact, the use of airport facilities may actually decline over time, which would potentially reduce the amount of solid waste generated. As such, this alternative is not anticipated to adversely impact solid waste disposal capacity.

The Town of Springfield solid waste facility, which was formerly located north of the airport along Schneider Road, has been covered and closed. There are no other sanitary landfills within 10,000 feet of Morey Airport.

Development Alternatives

Construction activities associated with each development alternative will contribute to the generation of solid waste. Construction-generated waste will be transported to an appropriate

disposal facility and/or disposed of in an appropriate manner. While the impact to waste-holding capacity at the disposal facility will be temporary in nature, the overall capacity will be reduced.

For the development alternatives under consideration, a slight increase in the generation of solid waste is anticipated over the course of time, due to the anticipated growth of aviation activity at the Airport. The impact of this waste generation is not expected to substantially impact waste disposal operations.

As discussed under the No Action Alternative, there are no solid waste landfills within 10,000 feet of Morey Airport. Therefore, the proposed development alternatives will be compatible with this criteria.

4.20 CONSTRUCTION IMPACTS

4.20.1 Noise

No Action Alternative

No additional development is proposed under the No Action alternative; therefore this scenario will not result in construction-related noise.

Development Alternatives

It is important to note that construction sound levels refer to instantaneous maximum sound levels, as opposed to hourly average sound levels used to describe traffic noise and airport noise. The noise generated by construction equipment will vary greatly, depending on equipment type/model/make, duration of operation and specific type of work effort. However, typical noise levels may occur in the 75 to 95 dBA range at a distance of 50 feet. Exhibit 16 shows typical noise levels at other distances. Adverse effects related to construction noise are anticipated to be of a localized, temporary, and transient nature.

To reduce the potential impact of construction noise, the special provisions for this project will require that motorized equipment shall be operated in compliance with all applicable local, state and federal laws and regulations relating to noise levels permissible within and adjacent to the project construction site. At a minimum, the special provisions will require that motorized construction equipment shall not be operated between certain designated hours (for example 8:00 pm and 7:00 am) without the prior written approval of the project engineer. All motorized construction equipment will be required to have mufflers constructed in accordance with the equipment manufacturer's specifications or a system of equivalent noise reducing capacity. It will also be required that mufflers and exhaust systems be maintained in good operating condition, free from leaks and holes.

4.20.2 Air Quality

No Action Alternative

Construction-related impacts to air quality will not occur under the No-Action alternative.

Development Alternatives

For the development alternatives, fugitive dust generated as a result of construction activities is anticipated due to the exposure of soil and the associated disturbance caused by heavy equipment and wind. This impact is expected to be temporary and localized. Preventative and mitigation measures are recommended during construction and include:

Site Preparation

- Minimize land disturbance
- Use watering trucks to minimize dust
- Cover trucks when hauling soil
- Stabilize the surface of soil piles stored on site
- Limit vehicular routes and stabilize temporary roads
- Grade soil to prevent it from washing onto paved roadways

Construction

- Cover trucks when transferring material
- Use dust suppressants on traveled routes that are not paved
- Minimize unnecessary vehicular and machinery activity
- Minimize dirt track-out by washing or cleaning trucks before leaving the construction site.
- Use silt fencing where appropriate to prevent sediment transport

Post Construction

- Re-vegetate any disturbed land not developed for airport operations including vehicular routes created during construction
- Remove unused material such as soil piles

4.20.3 Water Quality

Site conditions created during construction activities of the development alternatives have the potential to result in short-term water quality impacts in the form of suspended sediments, during and shortly after precipitation events. Recommendations established in *FAA Advisory Circular 150/5371-10 Standards for Specifying Construction of Airports, Item P-156, Temporary Air and Water Pollution, Soil Erosion and Siltation Control* will be incorporated into project design specifications in order to prevent potential impacts. These standards include temporary measures to control water quality impacts, soil erosion, and siltation through measures such as berms, fiber mats, gravel, mulch, slope drains, and other erosion control methods.

No Action Alternative

The No Action alternative will not result in water quality impacts from construction activities.

Development Alternatives

The development alternatives would be expected to result in some impacts. These impacts are generally short-term and localized. With implementation of mitigation measures and the receipt of all necessary permits, impacts related to the proposed improvements are not expected to be substantial.

In order to protect and maintain storm water quality, the City of Middleton and all applicable contractors will need to comply with requirements and procedures prescribed by the EPA's *National Pollutant Discharge Elimination System* (NPDES) General Permit prior to initiation of project construction activities. This includes the preparation of a Notice of Intent and a Storm Water Pollution Prevention Plan.

In addition to the measures mentioned above, the design and construction of the chosen Alternative will incorporate BMPs to reduce erosion, minimize sedimentation, and control non-point water discharges in order to protect the quality of area surface water features. BMPs are defined as structural and non-structural practices that provide the most efficient and practical means of reducing and preventing pollution of storm water. Examples of BMPs include the use of temporary dikes, basins and ditches with each phase of construction to control erosion and sedimentation thereby preventing degradation of off-site surface water quality. Upon completion of construction, slopes and denuded areas will be seeded to aid in the re-vegetation process. The selection of BMPs will be dictated by the site's characteristics and will depend on the erosion factors that are within the control of the City of Middleton and the contractors. The contractor is required to submit and receive approval of an Erosion Control Plan prior to the start of construction activities. An indication of the types of preventative measures that may be used during construction include:

- Sequence construction activities so that areas striped of vegetation are not exposed for long periods of time
- Construct a permanent storm water control facility early in the project schedule to use for controlling erosion and sedimentation
- Alter the project schedule to minimize the amount of exposed soil during wet periods of the year
- Schedule landscaping and other work that permanently stabilizes the soil to be implemented immediately after final contouring and grading are complete.

4.21 HAZARDOUS MATERIALS

URS conducted a Phase I Environmental Site Assessment (ESA) on September 21, 2000. The purpose of the ESA was to evaluate whether current or historic activities on or near the subject property may have resulted in substantial contamination by hazardous materials or wastes, also known as "Recognizable Environmental Concerns" (RECs). The Phase I Environmental Site Assessment was performed in accordance with ASTM Standard E1527-07 and the URS work scope dated February 23, 2000. The Wisconsin DOT, Bureau of Aeronautics authorized the work on May 2, 2000.

The subject property consists of approximately 140 acres and is comprised of a paved primary runway (SE/NW orientation), grassed N/S and E/W side runways, terminal/hangar buildings and various other support facilities. Portions of the subject property, not required to support airport operations, are currently cultivated with corn.

The airport was founded in 1942, and serves the general aviation needs, such as flight instruction, storage and maintenance for the local geographic area. The site has one 10,000-gallon, double-walled above ground storage tank (AST) containing Av-gas 100LL and one AST (approximately 250 gallons) containing waste oil. The storage facilities appeared to be well maintained. There are several drainage ditches and Pheasant Branch Creek located at the periphery of the property that collect stormwater runoff from the subject property.

Visible signs of contamination by hazardous substances, wastes, ASTs, underground storage tanks (USTs), and drums or containers were not observed on the subject property at the time of our site reconnaissance with the exception of a small amount of petroleum-based product observed on the concrete floor within the northeast corner of the hangar facility. The concrete in this area was not observed to be cracked. There is also a pile of material/debris located west of the Av-gas fuel tank that contained waste concrete, empty oil containers and old D-cell batteries.

Dry cleaning operations do not appear to have been conducted on the subject property. The site reconnaissance identified potential asbestos-containing materials (ACMs) within the terminal/maintenance facility; however, a full asbestos inspection was not included in the scope of work for this project. If renovation or demolition of any on-site facilities is planned, an asbestos inspection should be performed.

Based on the site reconnaissance and the information reviewed, the area containing the debris pile located west of the AV-gas fuel tank would be considered a potential REC. There is no indication that a REC could be expected at the subject property as a result of migration from nearby properties. However, there is documentation of historic leaking underground storage tanks at the site that were closed and removed.

No Action Alternative

This alternative will not result in the razing of the terminal/maintenance facility where potential ACM was observed. Potential ACM was in the form of floor and ceiling tiles and did not appear friable. As such, it may not pose a human health hazard unless disturbed. However, as a safety precaution, it is recommended this material be tested and disposed of in a proper manner if found to contain asbestos.

The debris pile west of the above-ground fuel tank should be removed and disposed of in a proper manner. Samples of the underlying soil should be taken to investigate if potential contaminants reached the soil surface. The concrete with petroleum-based staining in the hangar was not observed to be cracked; therefore, the potential for contaminants to reach the soil is low. Measures should be taken to absorb existing free product and minimize the occurrence of spills.

Development Alternatives

The Development Alternatives will involve razing of existing buildings (e.g., terminal, offices, etc.). As such, an asbestos survey in the terminal/maintenance facility should be completed and

identified ACM should be removed and disposed of in a proper manner prior to demolition of this building. Additionally, during demolition of the hangar facility, the petroleum-based stained concrete should be disposed of in a proper manner. If odors or staining are observed in soils underlying this area, the soils should be sampled to define the extent of contamination and remediated as necessary.

None of the Development Alternatives will directly impact the debris pile located west of the Av-gas fuel tank that contained waste concrete, empty oil containers and old D-cell batteries. However, for all development alternatives, URS recommends this material be properly disposed of and soil samples taken to determine if potential contaminants leached into the underlying soil.

4.22 OTHER CONSIDERATIONS

4.22.1 Possible Conflicts Between the Proposed Action and the Objectives of Federal, Regional, State and Local Land Use Plans, Policies, and Controls for the Area Concerned

The No Action alternative or the development alternatives are not expected to conflict with the objectives of various land use plans covering the project area, except as may be noted in previous sections of this chapter.

4.22.2 Inconsistency of the Proposed Action with Approved State or Local Plans and Laws

Provided that recommended best management practices and regulatory guidelines are implemented, the No-Action alternative and the development alternatives are expected to be consistent with the various applicable regulations.

4.22.3 Means to Mitigate Adverse Environmental Impacts

Where appropriate, mitigation measures are included in the discussion of the specific environmental impact category. Some of these measures are compensatory in nature (e.g., wetlands), but most involve design elements or best management practices that eliminate or reduce the level of various effects generated by the development alternatives. As indicated in Exhibit 15, wetland/stream, floodplain and stormwater mitigation will be coordinated within the areas shown, such that water resource impacts are addressed in a comprehensive and integrated manner. It is anticipated that the design of mitigative measures will be the primary focus of coordination activities with regulatory agencies during final design and permitting processes, and will result in positive environmental benefits.

4.22.4 Degree of Controversy on Environmental Grounds

Morey Airport is located within the watershed of the North Fork of Pheasant Branch Creek, which flows into a large wetland complex (Pheasant Branch Marsh) before entering Lake Mendota. The North Fork watershed is currently the focus of a public/private partnership formed to address land use, planning initiatives and ordinances affecting water resources. Pheasant Branch Marsh is held in conservancy by the City of Middleton, and Lake Mendota is part of the State's Priority Watershed program. In addition, the area around the Yahara Lakes is the focus of concern over regional groundwater drawdown.

The City's purchase of the privately owned Morey Airport was based in part on the premise that maintenance of the area as an airport would preserve open space and opportunities for stormwater infiltration and groundwater recharge. Although, the airport is a relatively small area, the public perception is that this is the key to reversing and mitigating for the large collection of impacts on the local environment resulting from past, present and continued development activities and land use practices. Clearly, Morey Airport cannot fulfill this role, however, the fact that one faction of the public is expecting it to do so and another would rather see the land developed for more intensive uses, suggests that the potential is high for controversy related to this project on environmental grounds. This potential for controversy appears to be related more directly to political issues and divisions of opinion regarding environmental protection in general, than to the actual value and sensitivity of the project site's environmental resources.

5.1 PUBLIC INFORMATIONAL MEETING

An open-house public informational meeting was held on January 9, 2001at the Middleton City Hall (Appendix G) The meeting was announced in the local newspaper, and individual notices were sent to adjoining property owners, local officials and other interest groups. It was attended by approximately 35-40 people. The purpose of the meeting was to provide information about the proposed airport improvements as recommended in the current *Master Plan Update,* answer questions, and obtain comments and concerns.

In general, most people were aware that airport improvements were being proposed. However, they were not aware of the "footprint" and configuration of the proposed improvements and additional areas that would be affected by providing the necessary clearance zones. Specific comments dealt with individual property impacts such as easement areas, loss of farmland, and farmland drainage. Others expressed concern about increased aircraft noise and impacts to the watershed including floodplain issues and wetlands.

5.2 AVAILABILITY OF PRELIMINARY ENVIRONMENTAL ASSESSMENT

The preliminary environmental assessment will be distributed for public review. A notice of public hearing will be published and a public hearing subsequently held to obtain comments. Individual notices will be sent to adjoining property owners, local officials and other interest groups to inform them about the public hearing.

The public involvement process to date for the proposed action has been inclusive of all residents and population groups in the study area and did not exclude any persons because of income, race, color, religion, national origin, sex, or disability

6.1 AGENCY COORDINATION

The following is a summary of comments received from state and federal agencies active in the review process for purposes of this Environmental Assessment. The agency letters/correspondence are included in Appendix D.

Wisconsin Department of Natural Resources

August 14, 2000 (letter) - Provided comments on state-listed threatened, endangered and special concern species in response to a June 7, 2000, request letter.

March 13, 2001 (Telephone) – Indicated that the WDNR is familiar with local floodplain issues and believes the proposed approach of relocating the floodplain north of the new runway would be acceptable provided adequate conveyance and storage of flood flow is adequate.

April 4, 2001 (Letter) – Provided comments regarding surface water and wetland issues related to development of the proposed project and indicated that they will work with the airport sponsor to best accommodate both the environmental and safety issues with the project.

U.S. Fish & Wildlife Service

June 26, 2000 (Letter) – Provided comments regarding federally-listed threatened and endangered species concerns.

U.S. Army Corps of Engineers

October 17, 2000 (Letter) – Provided comments regarding concurrence with the wetland delineation conducted at the project site.

State Historical Society of Wisconsin

June 9, 2000 (Letter) – Recommended that all areas of proposed ground disturbing activity be surveyed by an archeologist.

November 17, 2000 (Letter) – Indicated that no archeological sites were identified at the project site.

Native American Tribes

July 2, 2001 (Letter) – Letter submitted to Native American Tribes requesting input on the treatment of cultural resources. *(Response letters received will be included in the Final Environmental Assessment document).*

7.1 LIST OF PREPARERS

URS Corporation

- Dale Applegate. B.S. Aviation Management. 13 years experience in airport planning, noise control and noise compatibility studies, forecasting aviation demand, airfield capacity analysis, facility requirement analysis, and airport environmental assessments and compliance programs.
- Jeffrey Hruby, EIT. B.S. Geological Engineering and Mathematics. 2 years experience in hydrogeology and hydrology, streambank stabilization, stream restoration, wetland mitigation design, and bioengineering.
- James Ihrig, PWS. M.S. Fisheries Science, B.S. Biology. 12 years environmental consulting experience in aquatic and wetland investigations, environmental impact analysis and documentation, permitting and regulatory compliance.
- William Malinowski, P.E. B.S. Civil Engineering. 31 years experience developing airport master plans, site selection studies, and environmental assessments; planning, engineering design, development and construction project management; concept and feasibility studies, pavement evaluation, and construction estimating.
- William Poole. B.S. Biology and Wildlife Management. 15 years experience in wildlife, fisheries, and environmental studies, environmental analysis, permitting, and licensing.
- Paul Strack. Asst. Degree, Architectural Detailing. 20 years experience in project management for general and air carrier facilities, master planning, airfield layout and engineering, construction phasing, safety/security issues, cost estimating, and construction inspection.
- Jonathon J. Van Duinen, EIT. B.S. Civil Engineering. 4 years experience with airport design for general aviation facilities, airfield layout and engineering, cost estimating, and construction inspection.

Natural Resources Consulting

- Elizabeth Day, PWS, PH. M.S. Water Resources Management, B.S. Environmental Science. 19 years experience in wetland science and mitigation design, environmental impact analysis and documentation, permitting, and regulatory compliance.

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State Historical Society of Wisconsin, 2000. *Archaeological Investigation of Morey Airport*

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This section is a compilation of comments from federal, state and local agencies and citizens in response to their review of the proposed action, as presented in the Preliminary Environmental Assessment. Copies of review comments from public agencies and citizens are included at the end of this section.

Section 5 (Public Coordination) of this document explains that a public hearing was held on August 27, 2001. During the hearing 10 people gave verbal testimony. 5 individuals were in support of the proposed project, 3 expressed opposition and or concern regarding the project and 2 did not speak in support or opposition of the project. 8 people submitted written comments on the hearing registration form (5 in support, 2 opposed and 1 neither in support or opposition) but did not wish to speak. Twenty written comment letters were received from the general public during the open comment period following the public hearing. Of the 20 letters, 13 were in support of the proposed project and 7 were opposed. Six letters received from governmental agencies and Indian Tribes are included in this section.

Verbal Comments Received

Five individuals spoke in favor of the proposed airport improvements citing safety as the primary reason. Other comments indicated that the airport supports a number community service programs such as youth-oriented educational programs, the EAA Young Eagle program, which offers free airplane rides to young people and the Bald Eagle program that provides free rides to senior citizens during the fall color season. Several speakers indicated that the proposed improvements are overdue.

One individual indicated that while he is in support of the project he has concerns regarding the implementation and maintenance of construction site erosion control, proper mitigation of floodplain and wetland loss, and control/management of oil, grease and other solvents (pollutants).

> **Response** - Section 4.20.3 (page 4-37) of this Environmental Assessment describes the FAA guidance and examples of measures used to prevent water pollution, soil erosion and siltation during construction. Sections 4.11 and 4.12 (pages 4-27 and 4-30 respectively) indicate that the design and location of wetland and floodplain mitigation will be coordinated with the appropriate resource agencies and that their approval, as well as the approval of the FAA, will be required before the project can proceed. Section 4.6.3 (page 4-18) address the issue of preventing the release of hazardous materials to surface and ground water.

Three individuals that live in the vicinity of the airport spoke in opposition citing an increase in noise levels as the primary reason. One individual indicated he believes that his neighborhood, located west of the airport, will be significantly impacted by noise and potential safety concerns due to an increase in aircraft activity. He wanted to know if the airport would be beneficial to the citizens of Middleton or just to the local business community and indicated that citizens are already well served by Dane County Regional Airport. He is also concerned about wetland mitigation and believes the airport property would be better suited for floodplain restoration so that the south side of Airport Road could be more extensively developed.

Response – As indicated in Section 4.1 of this Environmental Assessment, no noise analysis is needed for proposals involving Design Groups I and II airplanes on utility or transport type airports whose forecast operations do not exceed 90,000 annual adjusted propeller operations or 700 annual jet operations. Although this airport qualifies under the above statement, the WDOT and the City of Middle determined that due to the environmentally sensitive nature of this project and the sensitivity of the community, a noise analysis would be conducted using the FAA Integrated Noise Model (INM) software. Results of the noise analysis indicate that the development alternative would not reach the level of significance in noise exposure (increase of DNL 1.5 dB or more at any noise sensitive location within the 65+ dB contour) when compared to the No-Action Alternative. Further, the 65 dB contour will be located entirely on the airport property.

Regarding whether airport improvements would benefit only the local business community as opposed to citizens in general, the assumption is that a strong and prosperous business base can benefit the overall economic viability of a community. This may be in the form of employment opportunities for local residents, additional tax revenue, etc. that can provide benefits to many residents within a community.

See previous response regarding wetland and floodplain mitigation.

Another individual indicated that even though the 65 DNL noise contour conforms with FAA regulations it is meaningless because it is an average based on a 25 year-old sound metric and doesn't factor in an individual's exposure/experience to noise over time. "People don't hear average noise; they hear single events." Therefore, he believes there will be an increased number of single-event exposures due to an increase in the number of operations.

Response – The level of noise analysis for the proposed project exceeds FAA requirements and complies with their standard criteria. Therefore, no additional analysis is proposed at this time.

The third person speaking in opposition, stated four main concerns:

1. He doubts the proposed stormwater retention basin(s) can be maintained in a dry condition for most of the time as would be required by the FAA due to the high groundwater table, or that the basin(s) will receive long-term maintenance. Also, he is concerned that the proposed airport improvements will have a damming effect to flood flow.
2. He would like to see his city tax money go toward an additional study of noise impacts. He is concerned that the improvements will lead to more noise over local schools and his neighborhood.
3. He would like to know what change will occur in the aircraft fleet mix due to a longer runway.
4. He doubts that there will only be a 1.2% increase in operations and would like to know where this data came from.

Response – The design and function of any on-site stormwater retention facility will need to be reviewed and permitted as with the approvals required by the appropriate resource agencies for the aforementioned wetland and floodplain mitigation design.

See previous response to noise analysis.

As indicated in Section 4.1.1 (page 4-2) of this Environmental Assessment, single-engine piston and light-twin engine piston aircraft will conduct the majority of operations at the airport. Heavier propeller and possibly small personal jet aircraft are expected to have some activity in the latter forecast period. However, these larger aircraft are not expected to be a substantial part of the overall activity level in the future.

Section 1.4.5 (page 1-4) explains how the forecast of aviation activity was generated to arrive at the prediction of a 1-2% annual increase in operations.

Two individuals spoke to express concerns but did not indicate their support or opposition to the proposed project. Both were concerned that the proposed airport/runway design might affect the drainage patterns on adjacent properties and wanted to be sure that this issue is fully addressed in the final design.

Response – See previous response regarding floodplain mitigation.

Written Comments Received

Written comments were received from a number of Federal, State, and local agencies. In addition, a number of the individuals/citizens submitted comments during the public hearing and/or during the open comment period. The following list of comments are addressed and included in this section:

Public Agencies

- US Fish and Wildlife Service, letter dated August 10, 2001
- US Army Corps of Engineers, facsimile letter dated August 17, 2001
- Wisconsin Department of Natural Resources, letter dated August 23, 2001
- Forest county Potawatomi Community, letter dated August 20, 2001
- Menominee Indian Tribe of Wisconsin, letter dated August 24, 2001
- Dane County Regional Planning Commission, letter dated September 14, 2001

Federally Listed Species/Critical habitat

The Fish and Wildlife Service indicated that there are several threatened and endangered species occur in Dane County. However, due to the nature and location of the proposed project, these species will not be affected.

Response – No response required.

Wetland Impacts and Mitigation

The US Army Corps of Engineers (ACOE) indicated the wetland areas that would be left intact and located between the runway and taxiway, need to be addressed as impacted. In addition, the most appropriate location for wetland mitigation in this case is the Lodi Wetland Mitigation Bank.

In contrast, the WDNR and the Dane County Regional Planning Commission (DRPC) are encouraging wetland mitigation to occur on-site. The WDNR concurs with the findings in the Environmental Assessment that describe the function of on-site wetlands as areas of stormwater infiltration and groundwater recharge and that their highest values are in maintaining water quality and quantity. The DRPC expresses that full compensation and rehabilitation of the wetlands include habitat functions. After further discussion with the ACOE, they concur that on-site mitigation is usually the most preferable alternative and, if it can be designed properly to satisfy the FAA safety criteria is acceptable for this project. However, they believe that the least complicated alternative is use of the mitigation bank site.

Response – In regard to the wetland area that will be located between the runway and taxiway, this area is included in the overall calculation of wetland impacts and is not being considered for inclusion as a wetland mitigation area. As for on-site mitigation, most of the existing wetlands are currently mowed or are in agricultural production and offer very little in the way of wildlife habitat or floral diversity. As indicated by the WDNR above, the primary function of these wetlands is stormwater infiltration and groundwater recharge. For safety purposes, the FAA will not allow wetland habitat that attracts wildlife to be developed within 10,000 feet of the airport. Therefore, during the design phase of the proposed project, specific design criteria will be developed in consultation with the appropriate resource agencies to ensure that the intended form and function of mitigated wetlands occur without attracting potentially hazardous wildlife. Proper design of the proposed wetland mitigation, floodplain mitigation and stormwater management aspects of this project are intended to protect the Pheasant Branch Creek and Lake Mendota water resources from sedimentation and pollution. Only if the detailed design, evaluation and coordination indicate that on-site wetland mitigation can't achieve the desired results, will offsite or banking options be considered.

Floodplain Impacts

The WDNR and DCRPC acknowledge that floodplain impacts will occur with the project as proposed. However, the DCRPC believes the impacts are underestimated and states, "Pheasant Branch Creek streambed and banks are eroding due to loss of flood storage, loss of infiltration and increased runoff volume and velocity." They would like to see the mitigation of floodplain impacts based on thorough and accurate flow and 100-year flood stage calculations.

Response – As indicate in Section 4.12 (page 4-30) of the Environmental Assessment, the mitigation plan will include measures to limit excessive impedance of flood flows. A conceptual plan, that is endorsed by the WDNR, including establishing the floodplain north of the new runway where infiltration rates are greater and the broadening of a portion of Pheasant Branch Creek along with developing meanders, is expected to fully compensate for any floodplain loss. A great deal of information from previous hydrologic studies currently exists for this area regarding flows and flood stage calculations. Additional detailed information will be collected as need for the design of floodplain mitigation measures.

Stormwater Retention/Infiltration

The WDNR and DCRPC expressed concern about providing adequate stormwater management/control and providing increased infiltration capabilities.

Response – Stormwater control features such as treatment swales with ditch checks and a retention basin will be designed to capture storm flow and direct it to portions of the airport property with greater infiltration rates. Also, a control structure can be designed to regulate the release of this water to Pheasant Branch Creek.

Environmental Corridors

The DCRPC would like to see the environmental corridor mapped in detail for the site using refined information now available on floodplains and wetlands (using corridor delineation guidelines). Also, they believe the proposed project will have a *substantial* water quality impact on Pheasant Branch Creek and Lake Mendota thereby, qualifying the impact to the corridor as a 'major change'.

Response – The DCRPC was contacted during preparation of the Environmental Assessment in order to obtain information regarding environmental corridors in the project area. The information provided was the most current available at that time and essentially indicated the environmental corridor was synonimous with the floodplain corridor.

Based on the conceptual wetland mitigation, floodplain mitigation and stormwater management plans being proposed, there is no reason to believe that the proposed project will have a substantial impact to surface water quality in the area. Therefore, a minor change to the environmental corridor is permissible by the WDNR.

Archaeological Resources

The Forest County Potawatomi Community and Menominee Indian Tribe expressed concern regarding the potential disturbance of Native American cultural resources and requested that an archaeological survey be conducted.

Response – As indicated in Section 4.8 (page 4-20), the State Historical Society of Wisconsin completed an archaeological investigation of the proposed airport expansion. No archaeological sites were identified, however, one Native American artifact, in the form of an early Archaic projectile point, was recovered and is considered an isolated find. No additional archaeological investigation was recommended.

Comments from those citizens opposed to the project and concerns raised from some in support of the project, essentially centered around potential noise impacts to local residents and potential impacts to the area wetlands, floodplain, and water quality. Other comments indicated concerns regarding economic impacts and impacts from runway lights.

Response – Because written comments received from area citizens are consistent with comments (verbal and written) presented at the public hearing and with comments from resource agencies, responses to the written comments received from citizens are adequately addressed in the responses provided previously in this section.

MINUTES
MIDDLETON AIRPORT COMMISSION
Monday August 27, 2001 5:00 p.m.

MEMBERS PRESENT: Ballweg, Gray, Held, Ramsey, Schwager, Sprang, Teal
MEMBERS ABSENT: None
STAFF PRESENT: City: Davis, Kelley, Opitz; WisDOT: Arnold, Stearn; Consultants: Day, Ihrig, Poole, Strack

A public informational meeting / open house was held from 5:00 - 7:00 in the Council Chambers. Staff from the airport planning consultant (URS), WisDOT Bureau of Aeronautics, and City of Middleton were on hand to review the Airport Layout Plan (ALP) and Preliminary Environmental Assessment (EA) document, and to address questions raised by the public.

Mayor Ramsey formally convened the Commission meeting for the public hearing at 7:00 p.m. He reviewed the rationale behind the City's acquisition of the airport and Quisling properties, and he outlined the hearing process. He stated his expectation that the Commission will receive a report of all the comments generated during the hearing process, and he indicated that upcoming Commission meetings would be well publicized. He said that the City Council would likely take some sort of action in October.

Next, Bill Poole of URS provided an overview of the consulting team's work. He said that the direction provided by the City and Bureau of Aeronautics (BOA) called for the team to develop an ALP that incorporates a 4,000 ft. primary runway and new terminal and hangar facilities, and to prepare an EA that documents the anticipated effects of implementation of the ALP. The public hearing is a step required before the EA can be considered for approval.

Poole outlined the various alternatives that were considered during the planning process, and noted that the preferred alternative is now called "3G." He stated that input provided at the public informational meeting in January prompted some changes to the preliminary ALP, including reconfiguration of the hangar area and a slight shift of the existing north-south turf strip. However, Poole said that the environmental impacts are virtually the same, noting that the alignment of the new 4,000 ft. runway has remained unchanged since January. He said that the design process is the time at which impacts will be minimized to the furthest practical extent, and that the U.S. Army Corps of Engineers and Wisconsin Department of Natural Resources will need to approve design plans.

Poole concluded the introductory remarks by announcing that public testimony would be welcomed through September 14, at which time the hearing will be formally closed. Comments should be directed to Gayle Stearn at the Bureau of Aeronautics (comments provided to City staff will be forwarded to her). Poole said that his firm will then incorporate public testimony into the final EA document before transmitting the document to BOA for review. The Federal Aviation Administration (FAA) is charged with conducting a final review and, if appropriate, issuing a "Finding Of No Significant Impact" (FONSI).

Ald. Teal inquired whether the runway re-alignment would change noise patterns. Poole and Paul Strack of URS referenced the draft EA and the display maps showing noise contour delineations. Teal also inquired as to what sort of aircraft would use a 4,000 ft. runway. Strack responded that the length of the runway would limit the type of planes to primarily the single-engine aircraft that use the airport today. He said that most jet aircraft require a runway exceeding 4,200 ft. in length for insurance reasons and to meet safety requirements.

Mayor Ramsey opened the public hearing at 7:30 p.m.

Bill Rewey, 3339 Moundview Road, Verona (Town of Middleton)

- Spoke in support. He said it's high time to proceed with the proposed improvements. In his many years of flying, he doesn't recall seeing a municipal airport with as narrow a runway and as poor a taxiway as what exists at Morey. Anything that can be done for safety improvements will be most welcome.
- Also talked about youth-oriented educational programs at Morey and about advancements in propeller and engine technology that are leading to decreased noise emissions.

Steven Ziegler, 4797 Capitol View Rd., Middleton (Town of Middleton)

- Spoke in opposition. Does not feel noise issues are adequately addressed. Thinks his neighborhood west of the airport will be significantly impacted with noise and safety concerns because of more aircraft flying closer to residences.
- Is airport beneficial to citizens of the City of Middleton, or is it for the benefit of the business community? Citizens are already well served by Dane County Regional Airport.
- Also concerned about wetland mitigation. Wonders whether core samples have been taken? Thinks better use of property would be restoration to a "viable and workable floodplain." This would make it better for the City to develop more extensively south of Airport Road.
- Written statement: "This is an inappropriate expenditure of public funds for strictly economic reasons without citizen (concurrence)."

Don Hammes, 3507 Valley Ridge Road, Middleton (City of Middleton)

- Spoke in support. Said he hadn't studied EA in detail, and wished copies of plan were available at the meeting, for review or purchase.
- Despite his support, he has significant environmental concerns, primarily in three areas:
  1) Construction site erosion control: This is the most serious contributor to the degradation of area lakes. Construction practices need to consist of more than silt fences. He will be monitoring implementation of erosion control plan very closely.
  2) Mitigation / loss of floodplain and wetlands: Purpose of floodplain is to stop fast flow of water over impervious surfaces that are contaminated with soil and pollutants. Supports efforts to mitigate floodplain loss as close to existing site as possible. Described use of detention/retention ponds and plantings with deep roots, but noted that this could potentially attract wildlife. He feels this issue / dilemma has not been adequately addressed in the EA.
  3) Control of oil, gas, and other solvents: Assuming airport improvements occur, how will discharge of pollutants be controlled, both during daily uses and in the event of an emergency?

Field Morey, 905 Farwell Dr, Madison (Village of Maple Bluff)

- Spoke in support. Commends the mayor, Airport Commission, and others for the manner in which citizen concerns have been addressed. His one area of concern is that "it wasn't started years and years ago."

Jeff Walker, 7239 Squire Circle, Middleton (Town of Middleton)

- Spoke in opposition. As resident of Hickory Woods, he is concerned about exposure of his neighborhood to noise pollution. Winds are primarily from the west for about 95% of the year. Neighborhood is in center of flight circle. 65 DNL contour is meaningless; it may conform to FAA regulations, but it's based on 25 year-old sound measurement. It doesn't factor in individual's experience with noise over time. "People don't hear average noise; they hear single events." Has recorded events of 70+ dB. Noise doesn't stay on airport property. The only thing that separates noise and aircraft is distance. There will be an increased number of single-event exposures due to increase in number of operations.

- Walker also said that this project represents an economic benefit for a small minority, and that it will destroy any quality of life that he and his neighbors have.

David Polich, 7309 Friendship Lane, Middleton (City of Middleton)

- Spoke in opposition. He has four main concerns:
  1) Retention basin and floodplain: He said that the basin will be below the groundwater table, and he doubts this area can be maintained in a dry condition for most of the time. He believes that the City doesn't spend money to maintain such basins currently (spiking, infiltration activities). Need to increase imperviability of retention basins; can't allow water to sit there and turn the basin into a "cement water tub". The standing water is going to attract birds. Also concerned that airport improvements will have a damming effect on water.
  2) Noise: Would like his city tax money to include additional study of noise impacts. What will happen to schools? What will be the noise level in his neighborhood? He is concerned that extending the runway 200-300 feet to the east will lead to more noise over his neighborhood and nearby schools.
  3) Lengthening of runway: What will be the change in aircraft due to a longer runway?
  4) Projected increase in traffic: Doubts there will be only a 1-2% increase. Where did this data come from? There will be more traffic that have destinations in mind, not just "ups and downs" associated with a training school.

Dan Uminski, 7211 Fortune Drive, Middleton (City of Middleton)

- Spoke in support. As a "longtime citizen for responsible growth," he said he strongly supports the improvement plan. Described two programs at Morey Airport: 1) "EAA Young Eagles" program, which offers free airplane rides to young people, and 2) "Bald Eagle" program, in which over a dozen senior citizens participated last fall when they were taken on a free leaf color trip in an effort coordinated with Middleton Senior Center staff.

Perry Armstrong, 4858 CTH Q, Waunakee (Town of Westport)

- Spoke in support. Said that he and his father learned to fly at the airport, but he moved away from Morey's when he purchased a twin-engine aircraft because the runway seemed a little short. He said he has served on the Wisconsin Aeronautics Council, and currently lives under the VOR-alpha approach. He believes that the airport process has been "examined as much as anyone could conceivably ask."

Jim Ripp, 6912 Schneider Road, Middleton (Town of Springfield)

- Did not register in support or opposition. As Town Chair, he wants Springfield to work with the City on drainage issues, so that it is not a problem for area landowners.
- Noted that the shift in the north-south turf strip also affects areas north of the airport (e.g., his property). He said he doesn't think the proposed re-alignment is a problem, but he wants to make sure that the Airport Road side isn't the only side addressed.

John Meinholz, 4772 Capitol View Road, Middleton (Town of Middleton)

- Did not register in support or opposition. Said that his mother's property would line up with the new west approach. Agreed with Jim Ripp's statement. Concerned about more water inundation of farmland. How quickly will water drain from farmland if the new runway functions as a dam? Standing water limits crop productivity.

Opitz read the statements of others who registered but did not wish to speak.

Tom Saari, 814 Miami Pass, Madison (City of Madison)

- Registered in support. Statement: "This airport is a tremendous economic asset to Middleton and current plans for construction make it a great fit for a community this size. I wholly support this project and hope to have a hangar for my airplane ... at Morey."

Lori Holmes, 7483 Pucoon Circle, Middleton (Town of Middleton)
- Registered in opposition. No statement.

Jim Judd, 7801 W. Old Sauk Road, Verona (Town of Middleton)
- Registered in support. Statement: "I appreciate the work the city is doing to improve Morey Airport."

Jay Martin, 1701 Camelot Drive, Madison (City of Madison)
- Registered in support. Statement: "Morey Airport, if improved as planned, will be a real asset for Middleton."

Mark Warshauer, 6333 Stonefield Road, Middleton (City of Middleton)
- Registered in support. Statement: "Airport as designed is safer than our current airport configuration. Need hangars. Pilots are understanding of noise issues and comply with the noise abatement rules."

Lanny Smith, 5109 Regent Street, Madison (City of Madison)
- Registered in support. Statement: "A much-needed, long-overdue improvement of Middleton/West Madison (and vicinity) transportation system."

Ron Reif, 7448 Meadowrue Circle, Middleton (Town of Middleton)
- Did not register in support or opposition. Statement: "As per engineer, please send copies of existing and projected flight tracks."

Janice Linzell, 7230 Squire Circle, Middleton (Town of Middleton)
- Registered in opposition. Statement: "I worry that the new angle of the runway will make takeoffs louder (they already are loud enough to wake me). I dread an increased number of arrivals and departures. We hope that it will be quiet from 9 p.m. - 7 a.m., except in the case of emergencies."

Mayor Ramsey closed this portion of the public hearing at 8:00 p.m. He reminded those present that comments will be accepted through September 14, and asked staff to describe where the preliminary EA document is available for public inspection. Staff responded that a copy can be reviewed at city hall or in the library, or on the city's website at: www.ci.middleton.wi.us. Ramsey urged those interested to contact staff to get on the distribution list for future Airport Commission agendas and minutes.

There being no other business, the Commission adjourned at 8:05 p.m.

Note: These minutes were prepared by Mark Opitz, Assistant City Planner & Zoning Administrator. These minutes are based on the notes of the recorder and are subject to change at a subsequent meeting.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Green Bay ES Field Office
1015 Challenger Court
Green Bay, Wisconsin 54311-8331
Telephone 920/465-7440
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RECEIVED DOT
AUG 16 2001
Div. of Transp. Infrastructure Dev.

August 10, 2001

Ms. Gayle M. Stearn, P.E.
Airport Development Engineer
WDOT - Bureau of Aeronautics
4802 Sheboygan Ave., Room 701
P.O. Box 7914
Madison, Wisconsin 53707-7914

re: Project I.D. 0713-54-03
Morey Airport
City of Middleton
Section 3, T7N, R8E
Dane County, Wisconsin

Dear Ms. Stearn:

The U.S. Fish and Wildlife Service has received your letter dated July 23, 2001, requesting comments on the subject project. Due to staff time constraints and priority work activities, we are able to only review your project for potential impacts to federally-listed threatened and endangered species or those proposed for listing. Be advised that other environmental concerns may be associated with this project such as wetland and stream impacts, erosion control needs, and effects on state-listed threatened or endangered species. State or federal permits may be needed, as well, if stream or wetland impacts will occur. If resource impacts are expected to occur, we recommend that you forward this project to the appropriate Wisconsin Department of Natural Resources office for their review.

Please provide us copies of any future review documents that may be associated with this project or of future projects you may be planning that would require Service review. This will allow us to keep our files current. We will provide comments as time and work priorities allow.

Federally-Listed Threatened and Endangered Species and Critical Habitat

A review of information in our files indicates that the following federally-listed threatened or endangered species or critical habitat occur in Dane County:

Classification	Common Name	Scientific Name	Habitat
threatened	bald eagle	Haliaeetus leucocephalus	wintering

threatened	prairie bush-clover	Lespedeza leptostachva	dry to mesic prairies with gravelly soil
threatened	eastern prairie fringed orchid	Platanthera leucophaea	wet grasslands
endangered	Higgins' eye pearly mussel	Lampsilis higginsi	lower Wisconsin River

Due to the nature and location of the proposed activities, we conclude that the above listed species or critical habitat will not be affected. This precludes the need for further action on this project as required by the 1973 Endangered Species Act, as amended. Should the project be modified or new information become available that indicates listed species or critical habitat may be affected, consultation should be initiated.

We appreciate the opportunity to respond. Questions pertaining to these comments can be directed to Mr. Ronald Spry by calling 920-465-7420.

Sincerely,

Janet M. Smith

Janet M. Smith
Field Supervisor

Stearn, Gayle

From: Stearn, Gayle
Sent: Friday, August 17, 2001 3:15 PM
To: Jackson, John
Cc: Arnold, Mark
Subject: FW: Morey Airport EA Comments
Tracking:

Recipient	Delivery
Jackson, John	Delivered: 8/17/2001 3:15 PM
Arnold, Mark	Delivered: 8/17/2001 3:15 PM

Hi John. Below are comments received from James Knowles with the Army Corps of Engineers regarding the wetland impacts to the Morey Airport project. He's recommending that mitigation be at the Lodi bank site. Was wondering what your thoughts were on this? How/when is it best to coordinate this effort with your office, the Army Corps and the City of Middleton as we move from the Preliminary Environmental Assessment stage to the design stage?

Thanks for your help!

Gayle

Gayle M. Stearn, P.E.
Airport Development Engineer
Bureau of Aeronautics
4802 Sheboygan Ave., Room 701
PO Box 7914
Madison, WI 53707-7914

Work: (608) 266-2782
Fax: (608) 267-6748

-----Original Message-----
From: Knowles, James B MVP [mailto:James.B.Knowles@mvp02.usace.army.mil]
Sent: Friday, August 17, 2001 12:20 PM
To: 'gayle.stearn@dot.state.wi.us'
Subject: Morey Airport EA Comments

Good Afternoon Ms. Stearn,

My name is Jim Knowles and I have assumed responsibility of Dane County for the St. Paul District Corps of Engineers, Regulatory Branch. I finished reading the subject EA and have just two main comments:

1. The wetland impacts for alternative 3G includes footprint, but not secondary impacts to wetlands. For instance, the wetland areas that would left intact that are located within the interior of the runway area would probably be permanently altered due to a change in hydrology patterns. These impacts need to be included within the EA.

2. The wetland mitigation issue needs to be addressed. The most appropriate location for mitigation in this case is the Lodi Wetland Mitigation Bank. Although the bank is intended for public projects within Dane County - other than WDOT work, because the project is being done for the City of Middleton I think we can enable debiting for wetland losses at that bank. However, the Dane County Airport is the bank sponsor and the Dane County Highway Department oversees the overall operation at the bank. To mitigate at the bank would require a debit of 15.61 acres. Of course, the WDNR would probably have some say in this matter as well. The other mitigation option is to mitigate at a WDOT bank in the area. If your agency attempts to do a

2.5, 5.0, and 10.0 mile radius search for suitable mitigation sites within the watershed - as required by the WDOT banking guidelines, the search will likely not result in positive results. If you contact Perry Rossa at Mead & Hunt he will be able to give you a very good idea what types of suitable mitigation sites are in the area that are available, cost effective, and doable. I recommend mitigation occur at the Lodi bank site.

Jim Knowles

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

WISCONSIN
DEPT. OF NATURAL RESOURCES

Scott McCallum, Governor
Darrell Bazzell, Secretary
Ruthe E. Badger, Regional Director

South Central Region Headquarters
3911 Fish Hatchery Road
Fitchburg, Wisconsin 53711-5397
Telephone 608-275-3266
FAX 608-275-3338
TTY 608-275-3231

August 23, 2001

Gayle M. Stearn
Wisconsin DOT
Bureau of Aeronautics
4802 Sheboygan Ave., Room 701
Madison, WI 53707

Subject: Preliminary Environmental Assessment: Morey Airport Development, Middleton

Dear Ms. Stearn:

We have reviewed the preliminary Environmental Assessment (EA) for proposed developments at Morey Airport in Middleton, Dane County. Our comments are as follows:

We generally find we could approve of the preferred alternative ("3G") as presented in the document, if certain measures are taken to include:

1. A stormwater retention / infiltration area should be constructed (likely in the area north of the proposed runway shown as mitigation area in Exhibit 15). High stormwater runoff rates and erosion problems in Pheasant Branch Creek now exist east of the airport. Additional swales with ditch checks, as suggested, may also be desirable.

   Table 4F indicates a 19% increase in stormwater runoff during a 10-year storm event for the Preferred Alternative (3G).

   As stated in our letter of April, 2001 to URS, we are concerned about potential soil infiltration of fuel, solvents, and other chemicals. We understand no de-icing chemicals are to be used at this airport. The EA states in general terms that these materials will be handled and contained to avoid spills and leaks, and accidents will be handled through development of a management plan that focuses on the facility's stormwater system. We would like to see more detail here. How will materials be handled to avoid spills and leaks, specifically? We would like to review the management plan for handling of accidents when it is developed.

2. On-site wetland mitigation should occur (may include the stormwater retention area). Of the 25 acres of small depressional wetlands delineated on the site, 9-10 acres would be impacted. These wetlands function as areas of stormwater infiltration and groundwater recharge: we concur that their highest values are in maintaining water quality and quantity. According to the document, the wetland assessed to have the highest structural and compositional value is to be severed by the new runway (p. 4-26).

   The opportunity to restore more contiguous wetland exists in the mitigation area shown in green, Exhibit 15. As part of this, the wetland that was severed by the existing north-south turf runway could be reconnected.

The EA also suggests possible wetland mitigation between the new runway and taxi-way. We would entertain this suggestion, however we wonder if it meets FAA safety criteria.

Wildlife Hazards: We understand the safety issues with airports and wildlife. Based upon our reading of this section of the EA (pp. 4-8 and 4-9), wetland mitigation must be excluded from beneath the approach and departure airspace, according to the FAA. It appears to us that the area shown for mitigation in Exhibit 15 would meet this criterion. In addition, this section states that water retention areas (which do not provide permanent standing water) may be considered on an individual basis, and listed on page 4-10 are design features that can be used to discourage wildlife from using these areas.

We will work with you on necessary design measures to accomplish this mitigation and satisfy federal safety standards.

3. This segment of Pheasant Branch Creek has very limited fish and wildlife value. Therefore we may allow rechannelizing the stream into a culvert under the proposed runway as shown in Exhibit 15, provided we review and approve the hydrological/hydraulic impacts, and wetland impacts are mitigated. We would likely support the proposed construction of meanders in the new creek alignment with a broad, low floodplain to replace lost wetland area from the rechannelization, but would want to review the detailed plans.

4. As stated in the EA, the majority of the site is in floodplain, with the current runway acting as a flood boundary as shown in Exhibit 8. We would support reestablishment of the floodplain north of the new runway (where infiltration rates are high). The EA suggests re-grading and water-control structures to achieve this.

5. All solid waste generated by the development should be placed in an appropriate disposal facility.

6. We support recommendations from URS consulting firm that the debris pile they identified during the Phase I investigation that is located west of the AV-gas fuel tank should be properly disposed of and soils sampled for potential leaching.

7. For handling of asbestos material, contact the following DNR Air Management Specialist:

   Tom Roushar; Air Management Section, South Central Region, Fitchburg, WI 53711, (608) 273-5603

Please feel free to contact me if you have any further questions or issues to discuss.

Sincerely,

Cathy A. Bleser
Environmental Analysis & Review Specialist

C: Russ Anderson - Fitchburg
Sue Josheff – Fitchburg
Cami Peterson – Fitchburg
Ron Grasshoff – Fitchburg
Mike Sorge – Fitchburg

Dane County Regional Planning Commission
217 S. Hamilton Street, Suite 403, Madison, Wisconsin 53703-3238
Telephone: 608/266-4137 Fax: 608/266-9117 E-Mail: dcrpcadm@execpc.com

September 14, 2001

Ms. Gayle M. Stearn, P.E.
Airport Development Engineer
Bureau of Aeronautics
Wisconsin Department of Transportation
4802 Sheboygan Avenue, Room 701
Madison, WI 53707-7914

Re: Environmental Review #01-5EA
Preliminary Environmental Assessment, Morey Airport, Middleton

Dear Ms. Stearn:

The Dane County Regional Planning Commission has reviewed the Preliminary Environmental Assessment for Morey Airport in Middleton, Wisconsin.

Background

In 1987, the Commission reviewed the requested designation of Morey Airport as a reliever airport and found that: "...Morey Field should be designated a specific reliever to the Dane County Regional Airport. This review considers *only the designation* of Morey Field as a reliever airport."

In 1992, the Commission reviewed the Environmental Overview for Morey Airport Master Plan. The Commission's comments noted that this report would be supplemented with more detailed environmental assessments, and went on to make the following suggestions:

> "As environmental assessments are prepared, please give particular attention to: impacts on the wetland and floodplain lands; stormwater drainage concerns; and water quality impacts to minimize adverse impact on Pheasant Branch Creek. Please be aware that a portion of the Morey Airport lands are designated as environmental corridors by the RPC and DNR."

Comments

With that as background, we have the following comments on the Preliminary Environmental Assessment for Morey Airport.

1. (p. 4-10) Not only wetland removal due to expansion should be considered as an adverse impact, but also the Federal Aviation Administration (FAA) rules limiting the function of remaining wetlands and floodplains for wildlife habitat. It should be recognized that Pheasant Branch Creek needs as much wetland area as possible to buffer its bed from erosion caused by increased runoff velocities and volumes. Mitigating elsewhere is *not* an acceptable option, since many of the important wetland and floodplain functions are needed at this location.

RPC

2. (p. 4-23) Environmental corridors should be mapped in detail for the site with refined information now available on floodplains and wetlands (using corridor delineation guidelines). The assessment that with DNR permits this would be a "minor change" is substantially correct for impacts on floodplain and wetland resources only. However, this proposal would have substantial water quality impacts on Pheasant Branch and Lake Mendota, and this alone would qualify it as a "major change".

3. (p. 4-24) Direct impacts could occur if infiltration facilities are overwhelmed by runoff or otherwise fail. Design is needed to capture the first ½-inch runoff, especially oil and grease, as required under the minimum standards recently established in Dane County (Chapter 14), which would supercede less restrictive city requirements.

4. (p. 4-27) The wetland discussion speaks to mitigation and compensation "without creating wildlife attractants". This does not appear to be a full compensation. There needs to be full compensation and rehabilitation of the wetlands, including habitat functions.

5. (p. 4-27) We need to be absolutely convinced that on-site mitigation is not feasible before looking elsewhere in the watershed. Mitigation banking is not an acceptable alternative here.

6. (p. 4-28) The floodplain loss impacts appear to be underestimated. Pheasant Branch streambed and banks are eroding due to loss of flood storage, loss of infiltration, and increased runoff volume and velocity. All of these can adversely impact property downstream. Appendix F of the report has a summary calculation of expected runoff. The calculations should be expanded to follow TR55 methodology for the range of all storm events up to 100-Year event and evaluate resulting changes in flow. Mitigation of impacts should be based on thorough and accurate flow and 100-year flood stage calculations.

Thank you for the opportunity to comment on the Environmental Assessment. If you have further questions, please contact Kamran Mesbah of our staff at 266-9283.

Sincerely,

Bill Lane

Bill Lane
Acting Executive Director

BL:TS:cw

cc: Dan Ramsey, Mayor, City of Middleton
Eileen Kelley, Planner, City of Middleton

MENOMINEE INDIAN TRIBE OF WISCONSIN

P.O. Box 910
Keshena, WI 54135-0910

RECEIVED DOT
AUG 31 2001
Div. of Transp.
Infrastructure Dev.

August 24, 2001

PROJECT DESCRIPTION:
Morey Airport
Middleton, Wi

Dear Sir:

We have received your letter in reference to the above-mentioned project. The Menominee Tribe has interest in this project in regard to archaeological and historical surveys. We are also concerned with any ground-disturbing activity that may occur as a result of the project that could disturb deeply rooted cultural resources. If such finds occur, please notify our office immediately. If human remains are encountered during construction, please notify the State Burial Sites Preservation Office immediately for compliance with Wis. Statute 157.70(1991)

This project could be a "federal undertaking" as a result of federal funding or the need for federal permits which enacts the National Historic Preservation Act of 1996 mandating "consultation" with Indian Tribes.

The Menominee people are the oldest continuous living residents of the State of Wisconsin and lived throughout the State at one time or another and have documented historical settlements throughout the State. **A literature search will not be accepted as an archaeological survey.** This is why we are adamantly concerned with this project. Please send all archaeological and historical surveys to our office upon completion for our review and please continue to comply with Section 106 of the National Preservation Act.

If you have any questions regarding this request, please call me at 715-799-5258.

Sincerely,

David J. Grignon

David J.Grignon
Tribal Historic Preservation Officer
Menominee Indian Tribe of Wisconsin

FOREST COUNTY POTAWATOMI COMMUNITY

P. O. BOX 340
CRANDON, WI 54520

HISTORICAL/CULTURAL CENTER

Phone (715) 478-7475
Fax (715) 478-7482
e-mail-claricew@fcpotawatomi.com

RECEIVED DOT
AUG 23 2001
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August 20, 2001

Mark A. Arnold
Airport Development Supervisor
Wisconsin Department of Transportation
4802 Sheboygan Avenue, Rm 701
Madison, WI 53707-7914

RE: Morey Airport
Middleton, WI
Dane County

Thank you for the notification regarding the aforementioned project. We apologize for the delay in our response.

Since the Potawatomi have lived in so many areas of what is now the State of Wisconsin, we have concern for these types of projects or whenever there is earth disturbance in those areas, therefore we wish to be considered as a consulting party under Section 106.

At this time we are not knowledgeable of any archaeological sites in the specific project area. However we are aware that the general area may have many archaeological sites. We appreciate that you have plans to do the various surveys. When your surveys are completed we would appreciate receiving a copy of them. After review of those surveys it is possible that we might wish to make further comments.

While much of this land may have been previously disturbed, it is always possible that when new land is disturbed that an inadvertent discovery could take place. In the event that this would happen we wish to be notified immediately

And we further request that all borrow used for this project is surveyed as well.

Clarice M. Ritchie

Clarice M. Ritchie
Researcher
WITRC Representative

Copy to: Jeff Crawford, Attorney General

Richard Lemon, M.D.
2519 Middleton Beach Road
Middleton, WI 53562
(608) 238-6715

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SEP 10 2001
Div. of Transp.
Infrastructure Dev.

9/6/01

Gayle Stearn
BOA Airport Development Engineer

Dear Ms. Stearn,

I wholeheartedly support the proposed improvements to Morey Airport. They are long overdue!

The improvements are needed to make Morey Airport SAFER.

Richard Lemon
9/6/01

Stearn, Gayle

From: WOODWARD David [dawoodwa@facstaff.wisc.edu]
Sent: Friday, September 07, 2001 9:13 AM
To: Gayle Stearn
Subject: Morey Airport Improvements

Dear Gayle Stearn:

Let me add my voice to those supporting the improvements for Morey Airport. The plans look excellent to me, and will improve the safety of the airport, particularly widening the runway, which has been described as a "sidewalk." It was excellent training, learning to land on such a narrow strip, but I wouldn't be too nostalgic about seeing it go!

As someone concerned with environmental matters, it seems to me that the proposed airport expansion will do far more for the environment than the inevitable urban sprawl that would take place without it. And the city of Middleton will benefit economically as well, so the plan will benefit almost everyone, which is about all we could ask for.

Sincerely yours,

--
David Woodward
Arthur H. Robinson Professor of Geography
Editor, History of Cartography
University of Wisconsin
550 North Park Street
Madison WI 53706-1491 USA

Phone: 608 262 0505
Fax: 608 263 0762
Web Site: http://www.geography.wisc.edu/histcart/

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SEP - 7 2001
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Infrastructure Dev.

Dear Ms. S Team,

I feel that the expansion of Morey Field will greatly add value to Middleton and the surrounding communities.

Sincerely,

Rudy Wanless
4708 Bergamot Way
Middleton Wi 53562

Stearn, Gayle

From: SWeidemann@aol.com
Sent: Wednesday, September 12, 2001 11:58 AM
To: Gayle.stearn@dot.state.wi.us
Subject: Middleton Airport

Greetings,

I attended the public hearing on Monday night August 27 and have some thoughts in support of the Middleton Airport to forward to you.
mttimes@execpc.com

Modernizing the Middleton Airport, an Excellent Event

During the last public hearing regarding the planned improvements to the Middleton Airport, we were again presented with comments for and against the airport improvement. While it seems most of the comments were very much in favor of the planned improvements, a few new cautionary comments about how the airport improvements would affect the surrounding area were presented, as well as many of the older (been heard many times) comments regarding noise and a few wishes the airport would stay the same, or go away. It is unfortunate that people (with full knowledge) can move into an area that has an airport nearby and at some later date, start complaining about it's existence. The Morey Airport has been around since World War II, and has been thriving as a flight school and private airport all those years.

Because of the City of Middleton's wisdom, the airport was purchased (as an airport) and plans are to modernize the facility to make it safer for contemporary aircraft operations and make it inviting for future businessess to use the airport safely. Aviation is here to stay, and it is an important part of the economic base of the communities that are large and growing. Now is the time to plan to embrace the airport, make it part of our community and live with the facility graciously. With a longer runway available, aircraft will be able to climb to "pattern" altitude quicker and thus separate themselves from surrounding populated areas (less noise). New aircraft being manufacured are quieter than the older aircraft. The Middleton and Madison west side are growing rapidly and the airport will benefit many people and businesses that otherwise would have to operate out of the larger & busier Madison airport. The community will benefit directly and in-directly from the airport and will bring many dollars to the area. Most of the planned improvements to the airport will be paid for by Federal funds, and most of the benefits will be received by the Middleton Area. I applaud the City for their decision to go ahead with the improvements.

Skot Weidemann

6621 Century Avenue, Ste. 2
Middleton, WI 53562
608/836-5744 Fax: 608/836-7121

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Stearn, Gayle

From: KBall2621@aol.com
Sent: Wednesday, September 12, 2001 9:39 PM
To: gayle.stearn@dot.state.wi.us
Subject: Morey Comments

Dear Gayle,

I would like to go on the record with the following comments. I don't think these facts have been stated before. There are two new Aviation/Aerospace classes that started this fall in area high schools, Edgewood and Middleton. West and Memorial already have such classes. All of them take advantage of the services at Morey's. The new Middleton class has 19 students, and they will be going for their introductory flights in just a couple weeks at Morey's. The Edgewood class number 24, and they will be going on a short training flight the end of October. This subject is highly motivational. Generally, it is an elective for juniors and seniors with strong math and science background. We are training some top kids!

It would be great if there were a classroom or reference library or some facility at the airport where groups could gather for training and ground school. This could be used for classes such as these, Young Eagle Rallies, Pilot groups like FOMA and PROPS who always have to search and beg for meeting room space, and for the City Airport Commission, who meets at city hall under tight scheduling constraints.

We know the hangar list is growing daily. Speaking on behalf of many students and pilots, we also have a waiting list for a good meeting facility.

(Of course the runway and taxiway are the first priority.)

Thanks for listening.

Diane Ballweg
2621 Park St.
Middleton, Wi. 53562

"Stearn, Gayle"
<gayle.stearn@dot.state.wi.us>

09/14/2001 04:27 PM

To: "'mopitz@ci.middleton.wi.us'" <mopitz@ci.middleton.wi.us>, "'bill_poole@urscorp.com'" <bill_poole@urscorp.com>
cc: "Arnold, Mark" <mark.arnold@dot.state.wi.us>
Subject: FW: Further comments RE: DEIS on Middleton Airport Project

-----Original Message-----
From: Lanny Smith [mailto:lsmith3@tds.net]
Sent: Friday, September 14, 2001 4:33 PM
To: gayle.stearn@dot.state.wi.us
Cc: Diane Ballweg
Subject: Further comments RE: DEIS on Middleton Airport Project

Dear Ms. Stearn,

As a pilot and a person very intersested in aviation generally, I have been, and remain, in full support of the much needed and long overdue improvements planned for Middleton/Morey Airport. This facility is an important and valuble asset to Middleton, Madison and vicinity, and its importance to the community and the area will increase with these enhancements.

One additional concern I have is about any significant temporary closing of the airport during construction. I hope that every effort possible will be made to keep the airport in service, even if limited, during the construction period. This is vital to both the business and recreational users and to the Fixed Base Operator (FBO).

I am not sure what is planned in regard to airport security, but in light of recent events, I would suggest consideration of installing perimeter fencing, at a minimum, in this regard.

I appreciate the comprhensive review and public input this project has received, but hope that all parties can now proceed with due deliberate speed to accomplish the job expeditiously.

Sincerely,

Lanny Smith
5109 Regent St.
Madison, WI 53705
September 14, 2001

Stearn, Gayle

From: George Bindl [gb.eaa-cfi@juno.com]
Sent: Friday, September 14, 2001 2:03 PM
To: gayle.stearn@dot.state.wi.us
Subject: Morey Airport

Gayle:

I am in full favor of the improvements at Morey airport. This is a very valuable community resource considering the industrial park there. To not improve this airp[ort would make it less likely to continue to exist in the future and if it disapears it would never to be able toi be replaced I believe!

Another important neccesity of the improvement is to be able to use the facility while the improvements are made.

PS How's it going Gayle?? When did you get your PP rating?? How would you like a checkoput in a J-3 Cub???

Call me sometime 849-7835

George Paul Bindl
www.babesandairplanes.com
The Valkyrie

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and the DREAM to
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Stearn, Gayle

From: Larry Landucci [llanducci@hotmail.com]
Sent: Friday, September 14, 2001 12:48 PM
To: gayle.stearn@dot.state.wi.us
Subject: Morey Airport

Dear Ms Stearn;

In various discussions concerning the development plans at Morey Airport I heard that one plan was to completely shut down the facility to aircraft during the renovation. In my opinion, this would be a serious mistake as construction could last for several months and the FBO (Morey Airplane Co) would be forced to close and/or to permanently move to another location.

It would not be difficult to first build the taxiway, while keeping the existing runway open, then switch operations to the taxiway during the new runway construction. This plan would result in a much shorter interruption of airport activities and perhaps allow the present FBO to remain in business.

I would strongly encourage you to convey this concern to those responsible for making the decisions concerning the long overdue improvements at Morey Airport.

Larry Landucci -- a concerned private pilot

Get your FREE download of MSN Explorer at http://explorer.msn.com/intl.asp

Stearn, Gayle

From: Ray Fey [rayfey@home.com]
Sent: Friday, September 14, 2001 3:28 PM
To: gayle.stearn@dot.state.wi.us
Subject: Fw: runway

----- Original Message -----
From: Ray Fey
To: gaylc.stearn@dot.state.wi.us
Sent: Friday, September 14, 2001 3:07 PM
Subject: runway

Hi Gayle,
I'm Ray Fey the guy who spoke with you after the Middleton meeting.

I would like to ask that the Morey Airport not be closed during the upcoming new runway construction in spring of 02.

It is very important to keep the airport going or we will lose the fixed base business. This would then end the service provided by Morey Airplane Co.

I wanted to register my formal request before the end of this day Sept. 14,2001

Thank you,

Ray Fey
608-831-9462

Toby Ginder, 8/29/01
477 Berwyn Dr, Madison

I think everyone would agree that if we have an airport it should be a modern facility.My question is why do we need the airport? Has a cost/benefit analysis been done? What will it cost to operate the airport? Will the tax payers wind up supporting the facility? Who will benefit from the airport? Can water quality issues, floodplane issues, and buffer zones be achieved without an airport?Will the property generate more revenue if privately developed and left on the tax roll? These are fundamental questions that should be addressed.

3605 Niebler Lane
Middleton, WI 53562
September 10, 2001

Middleton Airport Commission
Middleton City Hall
7426 Hubbard Ave
Middleton, WI 53562

Dear Sirs:

A headline in the evening paper this week ask the question "Is our city getting too noisy?" If you live in the northwest section of Middleton the answer is a resounding "yes". But even so the Middleton mayor and city council want to inflict more of this noise on their fellow residents.

The northwest section of Middleton where we live is built on small hills. When the planes take off from the Morey Airport, they turn and accelerate their engines so they can gain altitude just as they are coming up over these hills. The noise from some of the airplanes is quite loud and even causes vibrations in our homes. Because so many of the pilots using the airport are inexperienced and in training, they circle our neighborhood time and time again practicing and we are constantly listening to the noise. The other night we were out for an evening walk and one plane circled over our heads 6 times ruining what should have been a quiet evening walk. The noise is the same as walking by the busy highway and having trucks and motorcycles go by.

Mayor Ramsey was quoted last week as saying the airport would improve the quality of life for all residents of Middleton. There is no quality in loud engine noise.

The Morey Airport land should have been purchased and turned into recreational playing fields that would have benefited the youth and other citizens of the area but would not have harmed other citizens with noise. This airport project is being done for a very small group of businessmen and not for the citizens of this city.

Sincerely,

Katherine & Larry Nix

Katherine and Larry Nix

cc: Mayor Dan Ramsey
Councilman Howard Teal

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Gregory M. DiMiceli

7436 Meadowrue Circle Middleton, Wisconsin 53562
Phone: 608-836-1995 FAX: 608-836-8544
dimiceli@chorus.net

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SEP 17 2001
Div. of Transp.
Infrastructure Dev.

September 12, 2001

Ms. Gayle Stearn P.E.
Wisconsin Department of Transportation
4802 Sheboygan Avenue, Room 701
Madison, Wisconsin 53705

Dear Ms. Stearn:

I am writing in opposition to the proposed expansion of Morey Airport in the city of Middleton.

The proposed expansion of Morey Airport is completely without justification. The proposed expansion would cause direct and irreparable harm to the surrounding environment and to the quality of life in the surrounding residential areas.

According to the *Preliminary Environmental Assessment for Proposed Airport Development* by the URS Corporation (the Report), between nine and ten acres of wetland, and 58 and 60 acres of floodplain area, will need to be filled in to expand Morey Airport. Further, the proposed flight path resulting from the reconfigured 4000-foot runway will require a take-off and landing flight path almost directly over the Prairie Home Estates neighborhood in the town of Middleton.

The Report also estimates that night flights would increase by 15 percent and daytime flights would increase by 85 percent. The Report also states that the airport will require the installation of medium intensity runway lights and runway strobe lights. Most distressing of all, however, may be the Report's prediction that jet and turbo-prop aircraft would make regular use of the Morey Airport. The noise levels from these and other such aircraft would be intolerable given the close proximity of the airport to residential homes.

Recently, the Dane County Regional Airport (DCRA) completed construction of runway 3/21. This runway replaced two former runways, 4/22 and 8/26. This DCRA runway now better serves air carrier operations with its 7,200 foot length and 150 foot width. Additionally, DCRA's runway 18/36 is currently being reconstructed and will add increased flight capacity to that airport. As you know, the Dane County Regional Airport is a very short twenty minutes away from Morey Field. With the DCRA mere minutes away, and with the expanded capabilities of that airport, there is clearly no justifiable basis to expand Morey Airport.

To allow the proposed expansion of Morey Airport will be tantamount to soliciting legal action against the Wisconsin Department of Transportation, the city of Middleton, and other agents. In summary, I stand firmly in opposition to the expansion of Morey Airport for the following three primary reasons:

- The close geographic proximity of the Dane County Regional Airport.
- The known deleterious impact the expansion of Morey Airport will have on surrounding residential neighborhoods and their quality of life.

- The known adverse environmental impact the expansion of Morey Airport will have on the environment from the loss of 9 to 10 acres of wetland, and 58 to 60 acres of floodplain as a result of the proposed expansion.

The expansion of Morey Airport will, without justification, directly have a deleterious impact upon the environment and upon the quality of life in the surrounding residential areas. It is based upon these reasons that I would strongly urge the Wisconsin Department of Transportation to reject the proposed expansion of Morey Airport.

Sincerely,

Greg DiMiceli

cc: Ray Taffora, Michael Best & Friedrich LLP

Mr. Mark Opitz
Assistant City Planner
City of Middleton
7426 Hubbard Ave.
Middleton, WI 53562

Dear Mr. Optiz:

I am submitting my views regarding the proposed improvements for the Morey Airport. Are we replacing economic development for quality of life in Middleton? Might the money be spent in projects beneficial to more people? Air traffic has been and likely will be, general aviation, which means mostly private aircraft. Thus the airport serves largely a monied clientele.

The quality of life issues are safety and noise. More aircraft increase the possibility of a tragic airplane crash particularly as the airport is bound by growing residential areas. Aircraft ~~is~~ are already a substantial problem for those unfortunate enough to be near the Morey Airport or on its flight paths. Increased aircraft means more noise and to whose benefit? There were attempts to muffle jet engines on commercial aircraft at one time. Why not require noise suppression devices on engines of aircraft using Morrey Airport.

It appears that needs of the many are being throttled to benefit a few in the proposed airport expansion.

Sincerely,

Robert P.Bartholomew
3316 River Birch Lane
Middleton, WI 53562

September 12,2001

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Div. of Transp.
Infrastructure Dev.

To:
Airport Engineering Section Chief.
Wisconsin Dept of Transportation
Bureau of Aeronautics.

Dear Sir / Madam.

I am writing to express my staunch opposition to the Morey Airport project, proposed by the City of Middleton.
I am a resident of the Hickory Woods Neighborhood, which is located approximately 1 mile SW of the end of the current paved runway. Having attended the recent presentation and public hearing on this project, I am outraged to find that the proposed flight pattern which departs to the west, will expose Hickory Woods to the full impact of noise from this airport project. For approximately 95% of the year the winds are from a westerly direction, making this particular flight pattern the primary one, and will undoubtedly result in an increase in noise exposures.
The noise contour lines outlined at the presentation are in my opinion meaningless. The DNL noise metric using sound averaging, does not take into account the psychological aspect of noise exposure, and I highly doubt that anybody hears average noise. Clearly people hear single events, and I believe the increased departures and flyovers that will result from this airport project will expose myself, and my family to increased noise.
Dane county regional airport, which I believe is undergoing further expansion, is a first class facility that is more than capable of handling the commercial and general aviation needs of the few individuals that use Morey Field.
I believe the majority of Middleton residents, who will have to share in the tax burden, will not realize the limited economic benefits of this proposed project.
What is at stake here is the quality of life for myself and my family. The current single event noise exposures are extremely annoying, and will undoubtedly get worse with increased fight activity. I Strongly urge the Bureau of Aeronautics to view the environmental impact of this project outside of the Governmental and FAA regulatory requirements, and to consider the effect it will have on the citizens of Middleton.

Sincerely.

J A Walker
7239 Squire Cir
Middleton.

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Div. of Transp
Infrastructure Dev.

Lori & Gary Holmes
7483 Pucoon Circle
Middleton, WI 53562
September 11, 2001

Bureau of Aeronautics, WDOT
4802 Sheboygan Ave. Room 701
P.O. Box 7914
Madison, WI 53707-7914

Dear Gayle Stearn,

We are writing to you because of our concern regarding the proposed changes to Morey Airport in Middleton. We are opposed for the following reasons:

- there has not been an adequate noise level study for the surrounding area, especially for the town of Middleton and the homes that will be directly affected by the new runway
- increased air traffic will have a negative affect upon our quality of living as well as the value of our homes
- increased air traffic and noise over our schools
- Dane County Regional Airport is only 22 minutes away from Morey Airport and provides all of the necessary services
- with the proposed changes 9 to 10 acres of environmentally significant wetlands will be destroyed
- public information regarding this project was inadequately publicized for local residents

Therefore, it is our recommendation that these issues be resolved before any changes are approved for Morey Airport in Middleton. This includes a concerted effort to involve the residents of the Town of Middleton. If Morey Airport needs to be improved in order to better serve the community, it would seem appropriate that the entire community should have input on those needed improvements.

Sincerely,

Lori Holmes Gary Holmes

Lori and Gary Holmes

Appendix A

Table 1A (Typical Aircraft at Morey Airport)

Table 1B (Forecast of Aircraft Operations)

Table 1A Typical General Aviation Aircraft at Morey Airport				
Typcial Aircraft	Approach Speed (knots)	Wingspan (feet)	Airport Reference Code	Maximum Takeoff Weight (lbs)
SINGLE-ENGINE PISTON				
Beechraft C-33	60	33	A-1	3400
Beechraft A-33	60	33	A-1	2450
Cessna 150-J	50	33	A-1	1600
Cessna 152	52	33	A-1	1600
Cessna A-152	55	33	A-1	1600
Cessna 172-L	52	36	A-1	2300
Cessna 172-RG	58	36	A-1	2300
Cessna 172-N	51	36	A-1	2300
Cessna 172-G	49	36	A-1	2300
Cessna 172-I	49	36	A-1	2300
Cessna 172-H	49	36	A-1	2300
Cessna 182-P	58	36	A-1	3350
Cessna 182-Q	58	36	A-1	3350
Cessna 182	61	36	A-1	3350
Cessna T-210-L	63	39	B-1	4100
Ercoupe 415-C	43	30	A-1	1260
Piper J-3-C-65	38	35	A-1	794
Piper PA-18-150	43	30	A-1	1760
Piper PA-28-140	55	30	A-1	2150
Piper PA-28-180	57	38	A-1	3800
Piper PA-28-180-D	57	38	A-1	3800
Piper PA-24-250	60	36	A-1	3000
Piper PA-32-R-301T	65	36	A-1	3600
Taylor-Steeves Coot-A	43	36	A-1	1950
TWIN-ENGINE PISTON				
Cessna 310-R	93	37	B-1	5500
Cessna 310-Q	93	37	B-1	5500
Cessna 340-A	94	38	B-1	5990
BALLOONS				
Cameron-Balloons N-120	----	----	----	----
Cameron-Balloons Shoe 90	----	----	----	----

TABLE 1B Forecast of Aircraft Operations and Based Aircraft					
	ITINERANT		LOCAL		
Year	Air Taxi	General Aviation	General Aviation	Total Airport Operations	Based Aircraft
Historic					
1999	2,100	13,000	26,500	41,600	39
Low-Forecast Scenario					
2000	2,100	13,000	26,500	41,600	----
2005	2,300	14,000	26,600	42,900	----
2010	2,300	14,500	27,500	44,300	----
2015	2,500	14,900	28,300	45,700	----
2020	2,500	15,300	29,100	47,000	----
Medium-Forecast Scenario					
2000	2,100	13,000	26,500	41,600	----
2005	2,400	14,400	27,400	44,200	----
2010	2,400	15,300	29,000	46,700	----
2015	2,600	16,100	30,500	49,200	----
2020	2,800	16,900	32,100	51,800	
High-Forecast Scenario					
2000	2,100	13,000	26,500	41,600	----
2005	2,400	14,600	27,700	44,700	----
2010	2,500	15,600	29,600	47,700	----
2015	2,700	16,600	31,500	50,800	----
2020	2,800	17,600	33,400	53,800	----
Source: 1. FAA TAF, 2000. 2. URS, 2000.					

Appendix B

Agriculture Impact Statement

AGRICULTURAL IMPACT STATEMENT

Morey Airport Expansion
Dane County

Published May 3, 2001

**Wisconsin Department of Agriculture,
Trade and Consumer Protection
DATCP #1654**

Agricultural Impact Statement

Wisconsin Department of Agriculture,
Trade and Consumer Protection

James E. Harsdorf, Secretary

Nicholas J. Neher, Administrator
Division of Agricultural Resource Management

David Jelinski, Director
Bureau of Land and Water Resources

Mary Rose Teves, Chief
Resource Evaluation and Grants Section

Alice Halpin, Author