



222 S. Hamilton St., #1  
Madison, WI 53703

November 13, 2006

Daniel Millenacker  
Federal Aviation Administration  
Minneapolis Airports District Office  
6020 28th Avenue South, Room 102  
Minneapolis, Minnesota 55450

Dear Daniel,

On behalf of our Board of Directors and 1,200<sup>+</sup> members, the Wisconsin Wetlands Association (WWA) submits the following recommendations on the scope of inquiry for the Environmental Impact Statement (EIS) for the proposed West Bend Municipal Airport expansion. WWA is a 501(C)(3) non-profit organization dedicated to the protection, restoration and enjoyment of wetlands and associated ecosystems through science-based programs, education and advocacy.

We are pleased by the Federal Aviation Administration's (FAA) commitment to conduct a thorough and transparent review of the Purpose and Need, Alternatives, and Environmental Impacts of this project, and appreciate this opportunity to comment on the scope of inquiry.

Questions about these comments should be directed to my attention at 608-250-9971.

Sincerely,

Erin O'Brien  
Wetland Policy & Conservation Specialist

**History of WWA’s involvement and concerns with the proposed action:**

WWA has been monitoring the environmental review process for the proposed West Bend Municipal airport expansion (hereafter referred to as “the project” and “the proposed action”) since January 2003, and began actively advocating for the completion of this Environmental Impact Statement (EIS) in the summer of 2004. Our concerns and interests with the project have been both procedural (i.e., working to ensure full compliance with the National Environmental Policy Act (NEPA)), and ecological, and are well documented in the project record (see 02/05 correspondence with the Wisconsin Department of Transportation and 03/05 correspondence with Wisconsin Governor Jim Doyle).

The scoping recommendations outlined below are based on an extensive review of the project record (previous NEPA documents and federal and state regulatory agency responses), and our organizational expertise in wetland, riverine and wildlife ecology. They also reflect concerns with the reliability of data gathered and disclosed in previous NEPA review documents for the proposed action. Our comments below are therefore broken into two sections:

**Part 1: Procedural comments** to ensure the environmental review process is expansive enough to support project-related decision-making by federal and state environmental regulatory agencies, and adequately considers the public interest required under guidelines for processing permits under Section 404(b) of the Clean Water Act.

**Part 2: Research comments** providing recommendations for the content and methodologies for each section of the EIS.

**Part 1: Procedural Comments**

*1.a This inquiry should set the standard for environmental review of airport projects:*  
With FAA’s oversight, we are hopeful that the EIS development process for this project will serve as a model for the Wisconsin Bureau of Aeronautics (WisBOA) in terms of the breadth and depth of issues that must be evaluated and disclosed, and the amount of consideration that must be given to public and regulatory agency concerns, during the NEPA review process. Disagreement between WisBOA and the regulatory agencies and concerned public on the appropriate scope of inquiry at the EA stage for this and other projects (e.g., Sawyer County Airport, Portage Municipal Airport), has led to extended and expensive project delays, and has hurt public confidence in the public benefits of Wisconsin’s airport improvement program.

Though most airport improvement projects will not require a full EIS, we believe the NEPA process and the subsequent documents and decisions rendered for this project will set an important example for effective coordination on future federal/state airport actions. We therefore urge FAA to set the bar high in terms of the issues to examine and the degree of

cooperating agency and public input for the remainder of the discovery, disclosure and decision-making processes for the proposed expansion of the West Bend Airport.

*1.b A comprehensive, independent analysis of project data and assumptions is needed:*

FAA has assured the public that it will be taking a fresh look at the purpose and need for the proposed action. Though it's common, and in some aspects mandatory, to incorporate and build upon content from an EA when developing an EIS, public and cooperating agency comments on the Draft Final EA for this project expressed many legitimate concerns with the reliability of the data and assumptions used to report on current airport use, forecasted demand and the economic and ecological costs/benefits of the proposed action. We therefore urge the FAA and project consultants to conduct an exhaustive, independent review of all of the data and assumptions previously presented, for both accuracy and completeness, before incorporating any of the content of the Draft Final EA into the EIS. We ask for particular attention to any assertions that Southeast Wisconsin Regional Planning Commission (SEWRPC) plans and recommendations for meeting regional airport system needs point to expansion at the West Bend Airport as the only viable option.

*1.c Transparent and ongoing public participation must be allowed and encouraged:*

Because of the potential significant impacts to wetlands in the project area, the U.S. Army Corps of Engineers will serve as a cooperating agency and work with FAA to facilitate an integrated NEPA/Section 404(b) permit process. The integrated process relies on cooperating agencies attempting to reach concurrence on pre-determined threshold issues before proceeding to the next phase(s) of EIS development<sup>1</sup>. The presumed benefit of the integrated NEPA/404 merger process is to iron out issues of controversy along the way in order to provide a degree of certainty to the applicant regarding the Corps ability to issue a Section 404 permit for an agreed upon preferred alternative.

Implicit in this arrangement is the reasonable expectation that the cooperating agencies will not raise new concerns at the point of permit application that could have been dealt with during the NEPA process.

In stand-alone NEPA reviews and Section 404 permit processes, interagency and public input are typically solicited simultaneously, with both groups having access to the same complete information from the project record. In an integrated NEPA/404 process, however, the cooperating agencies are charged to review the project record as it is established, in order to reach agreement on the justification (e.g., purpose and need) for the project and to streamline the environmental review process by eliminating certain alternatives or ecological concerns from further consideration.

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<sup>1</sup> Applying The Section 404 Permit Process To Federal-Aid Highway Projects, Improving Interagency Coordination on Federal-Aid Highway Projects and Integrating the National Environmental Policy Act and Section 404 Requirements. Federal Highway Administration, National Marine Fisheries Service, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service. September 1988, Washington, D.C.

Though integrated NEPA/404 efforts may improve the efficiency of participating agencies and result in a higher degree of likelihood that a project will receive necessary permits, it may do so at the expense of soliciting public input that is used to inform the decision-making process in a meaningful way. For example, once the agencies have reached consensus and moved past discussions on project purpose and need, alternatives to advance for further consideration and the preferred alternative, it is reasonably foreseeable that they would be reluctant to change their position(s) in response to objections raised during public input on a Draft EIS or Section 404(b) public notice.

For this reason, we respectfully request that FAA solicit and consider public input at each of the agreed upon EIS concurrence points for this project. We have found no evidence in the NEPA, Section 404(b) or NEPA/404(b) merger guidelines to suggest that such input would be prohibited, so therefore conclude that it can be offered at the discretion of the lead agency.

*1.d The Wisconsin Department of Natural Resources (WDNR) should be granted Cooperating Agency status and be invited to provide technical assistance on the resource issue identification and evaluation efforts in collaboration with project consultants.*

As the state agency charged to protect and manage the natural resources of the state of Wisconsin for the benefit of the citizens of Wisconsin, WDNR holds more technical expertise and institutional memory on site- and landscape context-specific resource issues than any of the federal coordinating agencies involved in this project. As such, they will bring valuable resources and perspective to the integrated NEPA/Section 404 review process.

Beyond their obligations as a sister agency to the Wisconsin Department of Transportation under the WisDOT/WDNR cooperative agreement, Section 401 of the Clean Water Act, provides WDNR the responsibility to certify Section 404(b) permits for compliance with state water quality standards for wetlands (NR 103). WDNR is also charged to uphold the Public Trust Doctrine which allows that the waters of the state of Wisconsin belong to the citizens of the state of Wisconsin and will be protected for their current and future use and enjoyment.

Chapter 9 of the integrated NEPA/Section 404(b) guidelines<sup>1</sup> states:

“The SHA should work cooperatively with the Federal resource agencies, **State fish and wildlife agencies** as well as with the COE and the FHWA during the NEPA review process and when Federal permits (e.g., Section 404) are required. Contact with these agencies is necessary to accurately identify resources that occur in project areas which could potentially be impacted by highway project development.”

Chapter 10 of this same document provides:

“Cooperative agreements for technical assistance can enable resource agencies to participate early in the planning and development of highway projects instead of reacting to Section 404 permit applications. Thus, these agreements can improve the overall "climate" of coordination and make it more effective. Resource

agencies like the FWS, the NMFS or a **State department of natural resources** can often perform analyses or provide technical information directly to a SHA. This direct involvement by resource agencies may lead to more acceptable environmental documents and Section 404 applications.”

Because they hold substantial, relevant expertise and authority, and because the integrated NEPA/Section 404 guidelines allow it, WDNR should be named as a formal Cooperating Agency on the project. In addition to allowing WDNR’s input at each of the designated concurrence points, we would like to see that Cooperative Agreement grant WDNR substantial authority for technical oversight of research methodologies and approval of research findings for the environmental consequences section of the EIS.

## Part II: Research Comments

### 2.a Purpose and Need:

A federal Purpose and Need Work Group established as part of the *Environmental Stewardship and Transportation Infrastructure Project Review* clarified purpose and need as follows<sup>2</sup>:

- 1) the “purpose,” which states why the project is being proposed and articulates the positive outcomes that are intended;
- 2) the “need,” which describes the key problem or problems that are being addressed.

Based on these definitions, we support FAA’s intention to focus the Needs section of the EIS on the questions: What is the problem? And why does it need to be fixed?

Any statement of problem justification needs to include an extensive discussion of the constraints of the existing facility, including: design/safety for base aircraft; frequency of diversion of aircraft due to identified design constraints and the consequences of those diversions; and, thresholds of acceptability on travel distances between airports and frequency of diversions before action is required at a given site. Once the major constraints are identified, the EIS must address which constraints must be relieved on-site versus which can be reasonably addressed in other ways (e.g., by re-routing jets to other airports under constrained conditions).

The appropriate scope of a Purpose and Need statement was also examined by the above-mentioned Purpose and Need Work Group as follows:

“Court decisions indicate that the purpose and need for a proposed project cannot be defined in terms so unreasonably narrow that only one alternative would accomplish the goals of the project (*City of New York v. U.S. Department of Transportation*, 715 F.2d 732 (2<sup>nd</sup> Cir 1983), appeal dismissed 465 U.S. 1055 (1984)). In *Citizens Against Burlington v. Busey*, 938 F.2d 190, 198 (DC Cir 1991), the Court ruled that an agency “may not define the objectives of its action in terms so unreasonably narrow that only one alternative...would accomplish the goals of the agency's action, and the EIS would

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<sup>2</sup> Executive Order 13274: Purpose and Need Work Group, Baseline Report, Revised Draft. March 15, 2005

become a foreordained formality. Nor may any agency frame its goals in terms so unreasonably broad that an infinite number of alternatives would accomplish these goals and the project would collapse under the weight of the possibilities.”

When articulating the Purpose of the proposed action, we recommend that FAA should consider the “basic project purpose.” Examining a basic project purpose (e.g., safety or to fulfill a role in the regional airport system) will help FAA avoid the pitfall of defining a purpose and need so narrow that it excludes all but one alternative (e.g., to expand the West Bend Airport). Given the use of an integrated NEPA/Section 404 process and the substantial public interest review criteria that the Corps must consider, emphasis should be placed on defining a project purpose that prioritizes regional public benefits over private or local interests.

Establishing whether the basic project Purpose and Need is a) safety, b) to fulfill role in regional airport system, c) or economic development for the City of West Bend is also critical, because the alternatives analysis and public interest evaluation will look very different depending on which factor is driving the project. If all of these items are assumed to be part of the purpose and need, a distinction would need to be drawn regarding which aspects of the project are designed to meet which aspects of the Purpose and Need.

In taking a fresh look at the project Purpose and Need, please also consider the following observations and objections related to the two primary statements of Purpose and Need identified in the 2005 Draft Final EA:

**1. To allow the Airport to adequately fulfill its current and future role in the national, state, and regional aviation system.**

Because inclusion of a proposed project in regional and national airport system plans is a bottom-up process where airport owners self-identify the needs and benefits of their expansion plans, the EIS should take care to disclose the process for inclusion in these plans and to not overstate their value as evidence that the proposed project fulfills an unmet demand or solves a confirmed problem.

Forecasted and actual demand may be a better predictor of need, however, it is also important to acknowledge that forecasts used to justify the recommended expansion have consistently and grossly overestimated actual demand (e.g., The Wisconsin State Airport System Plan 2020 predicted West Bend Airport would support 90,900 operations by the year 2000, however the FAA Airport Master Record (form 5010), reported only 37,300 operations at West Bend Airport in 2004). The Wisconsin State Airport System Plan 2020 and other regional plans should also be reviewed for evidence supporting West Bend’s claim to be a recommended candidate for upgrade to a regional reliever airport.

**2. To provide a safe operating environment consistent with current airport design standards for the range of general aviation aircraft that regularly utilize West Bend Municipal Airport now and in the future.**

To support this statement, the EIS must include full disclosure of recommended standards for the base aircraft, and indication of when flexibility in those standards is appropriate to minimize the

environmental consequences of a proposed action. While we understand that recommended safety standards are driven by the needs of the largest craft with a minimum of 500 operations, we also assume that not every airport that acquires a jet is eligible for federal discretionary funds for expansion. We therefore request a discussion of the review criteria used to prioritize allocation of federal discretionary funds when only 1-2 aircraft are driving the need, and predictions for jet fleet expansion are merely speculative.

Finally, state statute requires airport owners to submit a “Statement of Project Intentions” by July 1<sup>st</sup> of even-numbered years. WisDOT’s 5-year improvement program characterizes this document as an airport owner’s long-range plan. Copies of these documents from 2003, and later, should be included in the EIS Purpose and Need section to better inform decision makers and the public on proposed and future plans for West Bend Airport expansion and to clarify the project sponsor’s primary interest in the proposed action.

### **2.b Alternatives Analysis:**

FAA has announced that federal rules require the EIS to re-examine all alternatives looked at in the EA and that the range of alternatives reviewed will include a no-action alternative, non-airfield alternatives, airfield alternatives and new alternatives. The discussion for each alternative must include enough detail to provide equitable level of comparison between on and off-site alternatives for the following factors:

- a) **Degree to which the option meets basic project Purpose and Need.**
- b) **Direct & indirect environmental impacts.** Each alternative must include full disclosure of natural resource features including acres of direct and indirect wetland impacts and the type and functional values of the wetlands to be impacted; acres of other natural resource features to be impacted, wildlife habitat impacts, surface and ground water impacts, etc.). Council on Environmental Quality (CEQ) definitions for direct and indirect impacts are provided in Part II, Section 2.c below.
- c) **Project costs, including environmental mitigation expenses.** Mitigation expenses should be based on an obligation to purchase and restore at least 1.5 acres of land for every wetland acre impacted, plus additional resources to compensate for mitigation of wildlife habitat impacts.
- d) **Degree to which the alternative addresses current and future constraints.** In addition to discussion of current constraints, the analysis must disclose and compare the surrounding natural resource constraints of each alternative should the airport need to expand further in the future.
- e) **A distinction between improvements required to meet FAA safety regulations for the current facility versus those that are proposed to enhance airport amenities** (e.g., hangar and pro-shop expansions).

Alternatives not given serious enough consideration in the 2005 Draft Final EA that merit a much more exhaustive look in the EIS include:

1. No-Action (including a discussion of the consequences of no-action).
2. Expand at another location (Hartford is the logical preferred location)
3. Build a new airport elsewhere in the City of West Bend or nearby.

When evaluating alternatives to advance for further consideration, we strongly recommend that the criteria for conducting public interest reviews on Department of Army permits, and an evaluation of consistency of the proposed alternatives with Section 404(b)(1) Guidelines, be emphasized in this analysis.

When reviewing Section 404 permit applications, the Corps is required to evaluate and balance the public benefits and detriments of all factors relevant to each case<sup>3</sup> including:

1. the relevant extent of public and private needs;
2. where unresolved conflicts of resource use exist, the practicability of using reasonable alternative locations and methods to accomplish project purposes; and
3. the extent and permanence of the beneficial and/or detrimental effects the proposed project may have on public and private uses to which the area is suited.

No permit is granted if the proposal is found to be contrary to the public interest. Because wetlands are generally considered a valuable public resource<sup>2</sup>, the public interest review for projects with wetland impacts are subject to additional balancing criteria.

A successful integrated NEPA/Section 404 review process must, therefore, place a high degree of emphasis on the public interest in the consideration of alternatives to advance for further consideration. A discussion of the public interest factors weighed, and justification for advancement based on a finding that the alternative is not contrary to the public interest (or not subject to public interest review because it successfully avoids wetland impacts), should be disclosed in the alternatives analysis text for each alternative advanced for further consideration (i.e., specific findings related to the public interest should be disclosed for each alternative). The full statutory text of the criteria the Corps must examine under a public interest review is provided in Appendix 1.

The Section 404(b)(1) Guidelines and EPA's mitigation policy further require that impacts be avoided to the extent possible by selecting the least environmentally damaging, practicable alternative. If it is determined that no alternative site exists for the proposed activity, on-site minimization should be utilized to the fullest extent practicable to lessen the degree of impact to a wetland or other aquatic ecosystem. Compliance with these guidelines must be considered and discussed in the discussion of which alternatives will advance for further consideration.

*2.c Overall Impacts (Direct/Indirect) and regulatory authority over these impacts:*  
According to CEQ regulations<sup>4</sup> direct and indirect impacts are defined as follows:

**Direct impacts** are caused by an action and occur at the same time and place as the action. **Indirect impacts** (also referred to as secondary impacts) are caused by the action and are later in time or farther removed in distance, but still reasonably foreseeable. Indirect impacts may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air, water, and other natural systems, including ecosystems.

Based on these criteria, the EIS must recognize that impacts associated with wetland fill, wetland tree clearing, alteration of wildlife habitat and stormwater/runoff management should all be characterized as direct impacts. Losses to area and functional values associated with these direct impacts must be addressed in the project mitigation plan.

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<sup>3</sup> CFR 33 Section 320.4, section a (*Public interest review*) & b (*Effects on wetlands*).

<sup>4</sup> 40 CFR Section 1508.8

#### 2.d Wetland Impacts:

The EIS must contain a more thorough evaluation of the extent of wetland impacts and environmental consequences of those impacts than was provided in the EA. Specifically, the EIS needs to:

- a. Acknowledge that wetland vegetation and tree removal qualifies as a direct impact and details on how those impacts are to be mitigated must be disclosed.
- b. Re-examine the wetland delineation methodologies, and append the wetland delineation and functional assessment report as needed, to ensure that seasonally appropriated methodologies were used to most accurately report on plant composition and wetland functional values.
- c. Fully describe wetland types and functional values and report on how those functions will be eliminated or degraded locally (irrespective of mitigation plans) as a result of the proposed activities. This discussion must include a thorough disclosure of the functional values of the wetlands to be cleared as well as those to be filled. This obligation should be met through both narrative discussion and revisions to the Wetland Functional Value Factors and Ratings Summary found in the Wetland Delineation and Functional Assessment Report. Better cross referencing between SEWRPC and consultant maps (to ensure wetland areas are all similarly labeled) would also be helpful.
- d. Discuss how fragmentation of wetland complexes will degrade the functions of the remaining complex (e.g., reduced habitat quality, reduced base flow to streams and wetlands, etc.).
- e. Summarize wetland acres, type and functional values of habitats to be impacted in Areas of Special Natural Resource Interest, Primary Environmental Corridors, Class I, II, or III Wildlife Areas and NA-3 areas of critical species habitat.

#### 2.e Cumulative and Secondary Impacts:

FAA presented the cooperating/coordinating agencies with the following three questions regarding the assessment of cumulative impacts:

1. What projects/actions should be considered?
2. What geographic boundary?
3. What timeframe?

CEQ Guidelines<sup>5</sup> define cumulative impacts as:

"The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

The cumulative impacts analysis should consider each of the major sources of impacts for the proposed action including, but not limited to: wetland fill and degradation, tree clearing, and increases in impervious surface. Because the areas to be impacted are part of a Primary Environmental Corridor associated with the Milwaukee River, the Milwaukee River Watershed may be the most appropriate

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<sup>5</sup> 40 CFR Section 1508.7 and Considering Cumulative Effects Under NEPA (<http://www.nepa.gov/nepa/ccenepa/sec1.pdf>)

external boundary for this analysis. However, the finer scale impacts for each of the 6 drainage areas identified in the project area should also be examined.

We recommend a cumulative impacts timeframe that dates at least as far back as needed to capture the cumulative impacts from wetland fill and other land alteration due to the construction of the existing airport.

The evaluation and disclosure of secondary impacts should, at a minimum, emphasize the probability that any on-site expansion:

1. May lead to subsequent wetland fills, further manipulation of water flow and storage, and additional measures to keep birds off the site in order to address water management concerns and reduce the risk of hazardous bird strikes.
2. May lead to a further degradation of local natural resources to accommodate reasonably foreseeable adjacent development. **Note:** The project area and lands immediately south are included in a Tax Incremental Financing District. More details on the proposed expansion of businesses and airport support services are available in a report posted on the Department of Community Development for the City of West Bend's web-site<sup>6</sup>.

#### 2.f Mitigation:

FAA presented the cooperating/coordinating agencies with the question: What are your expectations for a conceptual mitigation plan?

Section 404(b) of the Clean Water Act, and Wisconsin Water Quality Standards for Wetlands both require that a project not result in significant adverse effects to wetland functions. However, both sets of regulations do allow for the consideration of mitigation to offset losses to wetland functions and values. A conceptual mitigation plan must, therefore, provide reasonable assurances as to the likelihood of the proposed mitigation to offset losses to wetland acres and functional values.

To provide these assurances, a conceptual mitigation plan must include some level of detail on: the location of mitigation efforts, the types of wetlands to be restored, the amount of wetlands to be restored, the monitoring and maintenance commitments to be required to ensure mitigation performance standards are met, and details on the financial assurances (e.g., performance bonds) that will be required to ensure the project(s) are built and maintained to specifications.

Because the wetlands in the project area provide functions critical to the maintenance of the health of the Milwaukee River and the recharge of local groundwater supplies, mitigation must occur within the watershed. Minimum replacement ratios should be 1.5:1, with higher ratios for hard to replace functions provided by wooded wetlands and wetlands with high values for groundwater recharge. A long-term (i.e., 40-50 year) stewardship commitment will be needed to ensure adequate replace of wetland functions lost due to the fill and degradation of wooded wetlands.

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<sup>6</sup> Summary of West Bend TIF Districts (pg 15).

[http://www.ci.west-bend.wi.us/Departments/DCD/Business%20Development/Adobe%20Acrobat%20Files/TIFReport\\_Appendix\\_March06.pdf](http://www.ci.west-bend.wi.us/Departments/DCD/Business%20Development/Adobe%20Acrobat%20Files/TIFReport_Appendix_March06.pdf)

*2.g Milwaukee River, Tributary & Floodplain/Flooding Impacts:*

The impacts from the loss of wetlands, increases in impervious cover, and other manipulations of hydrology within the 100 year floodplain of the Milwaukee River and adjacent tributaries, must be considered. Questions that must be examined include, but are not limited to:

1. How will the project impact productivity of the Warm Water Sport Fishery? Of particular concern are potential impacts to local populations of the Greater Redhorse (a state threatened fish), and whether/how the project will contribute to nuisance macrophyte populations already flourishing downstream due to eutrophication. The fact that significant differences in water quality above and below the City of West Bend already exist should be taken into consideration.
2. The wetlands to be impacted are located substantially within the 100 year flood plain and many of those to be filled rank High for water quality protection functions. How will paving over them impact the quality of the Milwaukee River and adjacent tributaries?
3. Which wetlands ranked high for flood & stormwater attenuation and how will the collective impacts to these functions hurt the river or adjacent streams?
4. What will be the effects of increased impervious surface adjacent to Wingate, Airport & Kudek Creeks? A survey of the percentage of impervious surface in adjacent drainage areas was included in the Wetland Delineation and Functional Assessment Report prepared for the EA. Those facts, and generally understood thresholds where impervious cover begins to have measurable impacts on water quality, must be evaluated and disclosed.
5. How will tree-clearing and other wetland fill activities disturb the soil and increase the transport of sediment to the Milwaukee River and adjacent tributaries?

Note that the Wetland Delineation and Functional Assessment Report prepared for the EA identified 6 drainage areas in the project area, three directly draining to the Milwaukee River and three draining to adjacent tributaries (Wingate, Airport and Kudek Creek). Independent impacts to all three creeks, and the combined effects the impacts to the creeks will have on the Milwaukee River, must be considered.

*2.h Habitat study/wildlife survey:*

In addition to filling wetlands, tree clearing and tree-topping will have direct impacts on local wildlife habitat and populations. A detailed fish and wildlife survey is needed to determine what species are currently using the site and how the proposed project will eliminate or degrade wildlife habitat functions. This study should include, but not be limited to:

1. The project's potential impacts on endangered and threatened species including Blandings Turtles, Butler's Garter Snake and possibly the Greater Redhorse.
2. An evaluation of how the proposal will increase the potential for bird strikes and the likelihood that subsequent management activities (e.g., additional wetland fills, water manipulation or FAA recommended hazard management activities<sup>7</sup>) will further decrease or degrade wildlife habitat. Because any clearing of wooded wetlands will likely result in the pooling of water near the runway, a Wildlife Hazard Assessment should be completed by a

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<sup>7</sup> FAA Advisory Circular No:150/5200-33A *Hazardous Wildlife Attractants on or Near Airports* (dated 7/27/04).

qualified damage management biologist. USDA-APHIS-ADC is likely the most qualified provider of this service.

3. Noise impacts on the heron rookery on the Ozaukee Washington Land Trust property across the river should be evaluated. WDNR should be consulted to glean from existing department studies on the impacts disturbance on heron rookeries.
4. Impacts to designated wildlife areas (e.g., Class I Wildlife habitat and critical species habitat) must be evaluated, including but not limited to the effects of fragmentation and reduced acreage of land in environmental corridors.

Technical assistance from WDNR should be sought to determine the appropriate timing and methodologies for these and other wildlife habitat evaluations.

**2.i Hydrology Study:**

Because most of the wetlands in the project area ranked high for groundwater recharge and flood storage functions and the nature of the soils and depth to groundwater raise serious questions about the wisdom or feasibility of increasing impervious surfaces at the site, the following questions related to site hydrology must be evaluated:

1. How will the proposed wetland fill impact peak flows on the adjacent Milwaukee River?
2. How will soils and site hydrology influence the stability and long-term durability of the expanded runway and taxi-area. Can anything be learned from the condition of the existing runways to predict the influences of highly permeable soils and an area with a high water table on runway stability?
3. How will the proposed wetland fill decrease aquifer recharge?
4. What impact will the loss of recharge area, increase in impervious surface, and increase in polluted runoff have on local wells?
5. How effectively will new stormwater basins and dry swales manage additional runoff in this area of high water table?

Details for how the concerns listed above will be addressed must be disclosed early in the EIS development process because the answers have serious implications for the evaluation of environmental consequences of the proposed action. Technical assistance from WDNR should be sought to determine the appropriate timing and methodologies for these and other evaluations of impacts to site hydrology.

**2.j Disclosure of Costs and Benefits:**

The full costs of the project and the proportional burden of those costs to FAA, WBOA and the City of West Bend should be disclosed in the EIS. This analysis must include reasonably accurate estimates for the costs of mitigation for wetland and wildlife habitat losses.

**Appendix 1: 33 CFR Section 320.4 - General policies for evaluating permit applications.**

The following policies shall be applicable to the review of all applications for DA permits. Additional policies specifically applicable to certain types of activities are identified in 33 CFR Parts 321-324.

**(a) Public Interest Review.**

(1) The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of this general balancing process. That decision should reflect the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal must be considered including the cumulative effects thereof: among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(1) guidelines. Subject to the preceding sentence and any other applicable guidelines and criteria (see Section 320.2 and 320.3), a permit will be granted unless the district engineer determines that it would be contrary to the public interest.

(2) The following general criteria will be considered in the evaluation of every application:

- (i) The relative extent of the public and private need for the proposed structure or work:
- (ii) Where there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work; and
- (iii) The extent and permanence of the beneficial and/or detrimental effects which the proposed structure or work is likely to have on the public and private uses to which the area is suited.

(3) The specific weight of each factor is determined by its importance and relevance to the particular proposal. Accordingly, how important a factor is and how much consideration it deserves will vary with each proposal. A specific factor may be given great weight on one

proposal, while it may not be present or as important on another. However, full consideration and appropriate weight will be given to all comments, including those of federal, state, and local agencies, and other experts on matters within their expertise.

**(b)Effect on wetlands.**

(1) Most wetlands constitute a productive and valuable public resource, the unnecessary alteration or destruction of which should be discouraged as contrary to the public interest. For projects to be undertaken or partially or entirely funded by a federal, state, or local agency, additional requirements on wetlands considerations are stated in Executive Order 11990, dated 24 May 1977.

(2) Wetlands considered to perform functions important to the public interest include:

(i) Wetlands which serve significant natural biological functions, including food chain production, general habitat and nesting, spawning, rearing and resting sites for aquatic or land species;

(ii) Wetlands set aside for study of the aquatic environment or as sanctuaries or refuges;

(iii) Wetlands the destruction or alteration of which would affect detrimentally natural drainage characteristics, sedimentation patterns, salinity distribution, flushing characteristics, current patterns, or other environmental characteristics;

(iv) Wetlands which are significant in shielding other areas from wave action, erosion, or storm damage. Such wetlands are often associated with barrier beaches, islands, reefs and bars;

(v) Wetlands which serve as valuable storage areas for storm and flood waters;

(vi) Wetlands which are ground water discharge areas that maintain minimum baseflows important to aquatic resources and those which are prime natural recharge areas;

(vii) Wetlands which serve significant water purification functions; and

(viii) Wetlands which are unique in nature or scarce in quantity to the region or local area.

(3) Although a particular alteration of a wetland may constitute a minor change, the cumulative effect of numerous piecemeal changes can result in a major impairment of wetland resources. Thus, the particular wetland site for which an application is made will be evaluated with the recognition that it may be part of a complete and interrelated wetland area. In addition, the district engineer may undertake, where appropriate, reviews of particular wetland areas in consultation with the Regional Director of the U. S. Fish and Wildlife Service, the Regional Director of the National Marine Fisheries Service of the

National Oceanic and Atmospheric Administration, the Regional Administrator of the Environmental Protection Agency, the local representative of the Soil Conservation Service of the Department of Agriculture, and the head of the appropriate state agency to assess the cumulative effect of activities in such areas.

(4) No permit will be granted which involves the alteration of wetlands identified as important by paragraph (b)(2) of this section or because of provisions of paragraph (b)(3), of this section unless the district engineer concludes, on the basis of the analysis required in paragraph (a) of this section, that the benefits of the proposed alteration outweigh the damage to the wetlands resource. In evaluating whether a particular discharge activity should be permitted, the district engineer shall apply the section 404(b)(1) guidelines (40 CFR Part 230. 10(a) (1), (2), (3)).

(5) In addition to the policies expressed in this subpart, the Congressional policy expressed in the Estuary Protection Act, Pub. L. 90-454, and state regulatory laws or programs for classification and protection of wetlands will be considered.