

WS Wildlife Services

Protecting People | Protecting Agriculture | Protecting Wildlife

Scott Beckerman, State Director

Ryan Swearingin, Wildlife Biologist

Illinois



Protecting People
Protecting Agriculture
Protecting Wildlife



United States Department of Agriculture
Animal and Plant Health Inspection Service

Wildlife Hazards

What Are They Here?



Wildlife Hazards

What Are They Here?



Wildlife Hazards

What Are They Here?

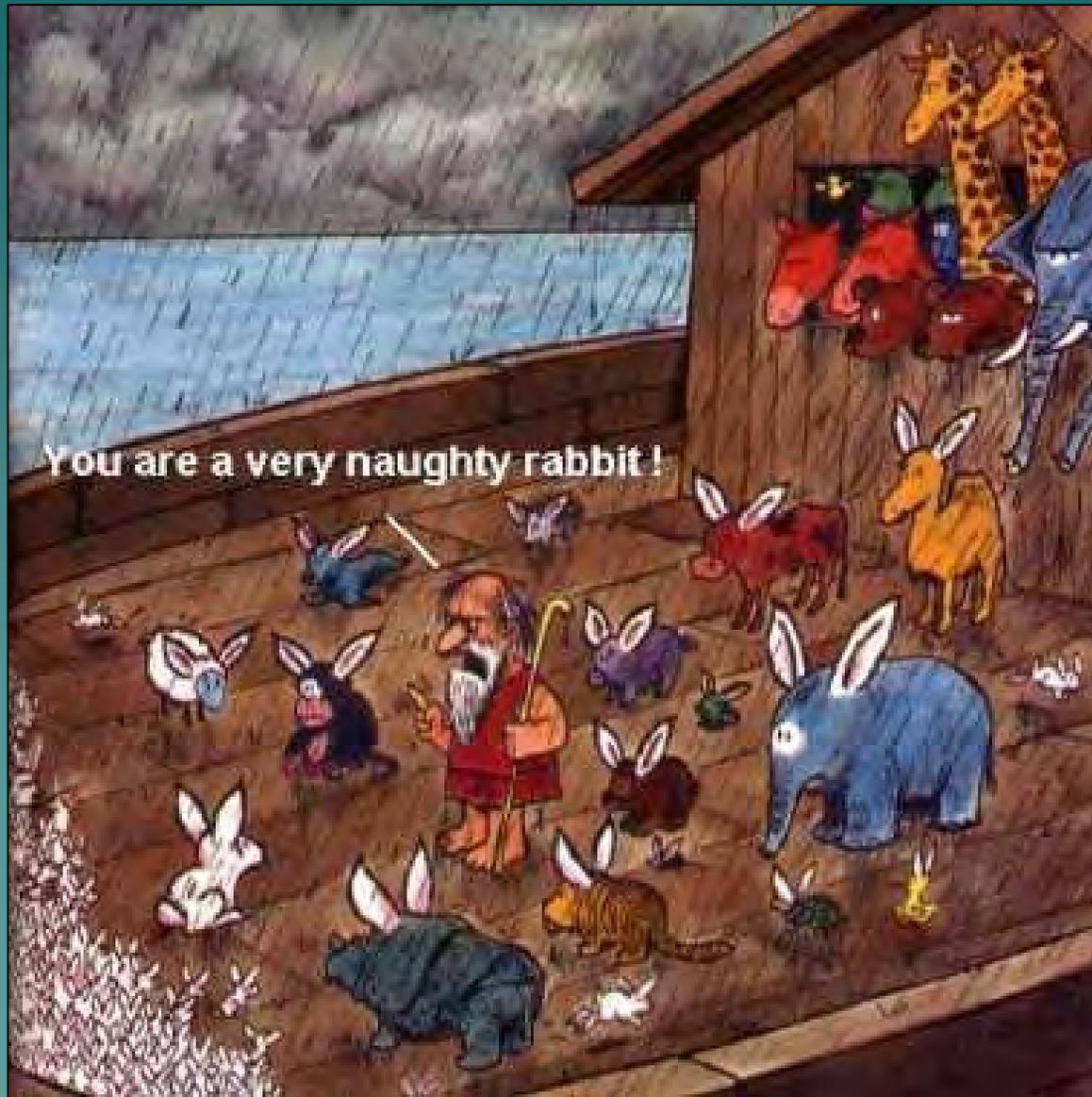




**Commercial aircraft movements
increasing at 2% per year**



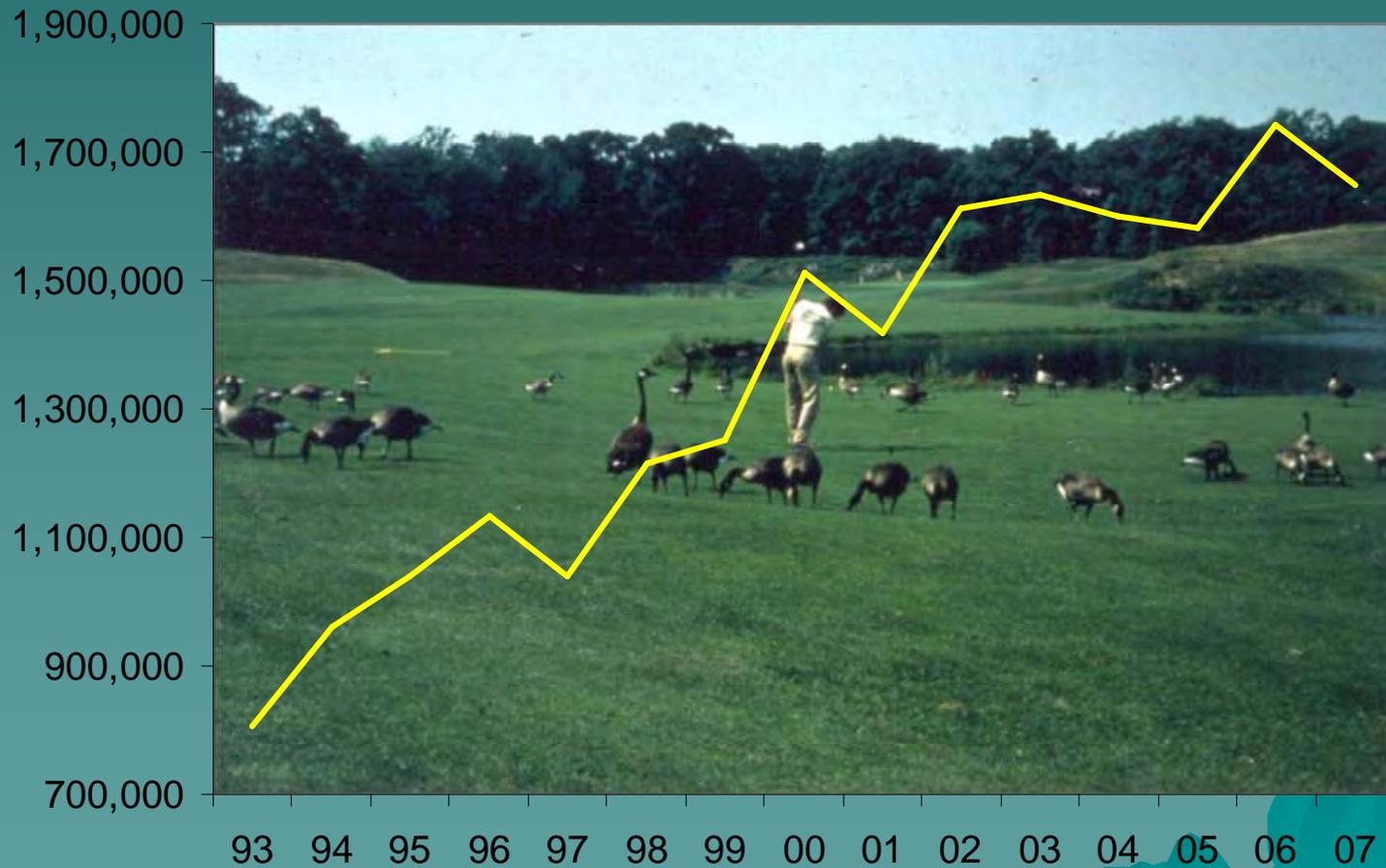
Wildlife Population Increases



Great Lakes Gulls

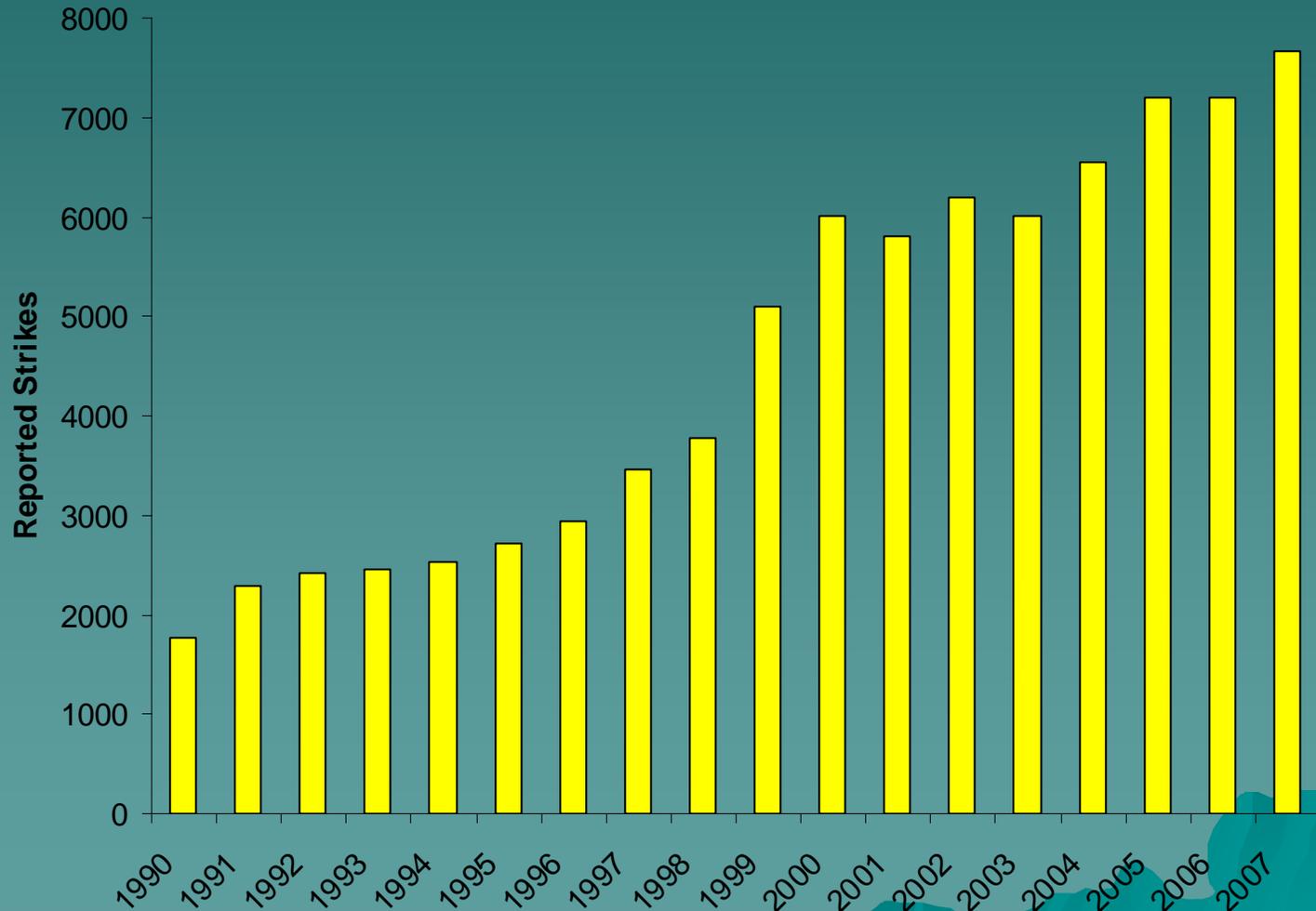


Giant Canada Geese



Reported Wildlife Collisions with Civil Aircraft, U.S.

Based on 82,057 Strike Reports, 1990-2007





U.S. Department
of Transportation

Federal Aviation
Administration

Advisory Circular

Subject: HAZARDOUS WILDLIFE
ATTRACTANTS ON OR NEAR
AIRPORTS

Date: 8/28/2007

AC No: 150/5200-33B

Initiated by: AAS-300 **Change:**

1. **PURPOSE.** This Advisory Circular (AC) provides guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. It also discusses airport development projects (including airport construction, expansion, and renovation) affecting aircraft movement near hazardous wildlife attractants. Appendix 1 provides definitions of terms used in this AC.

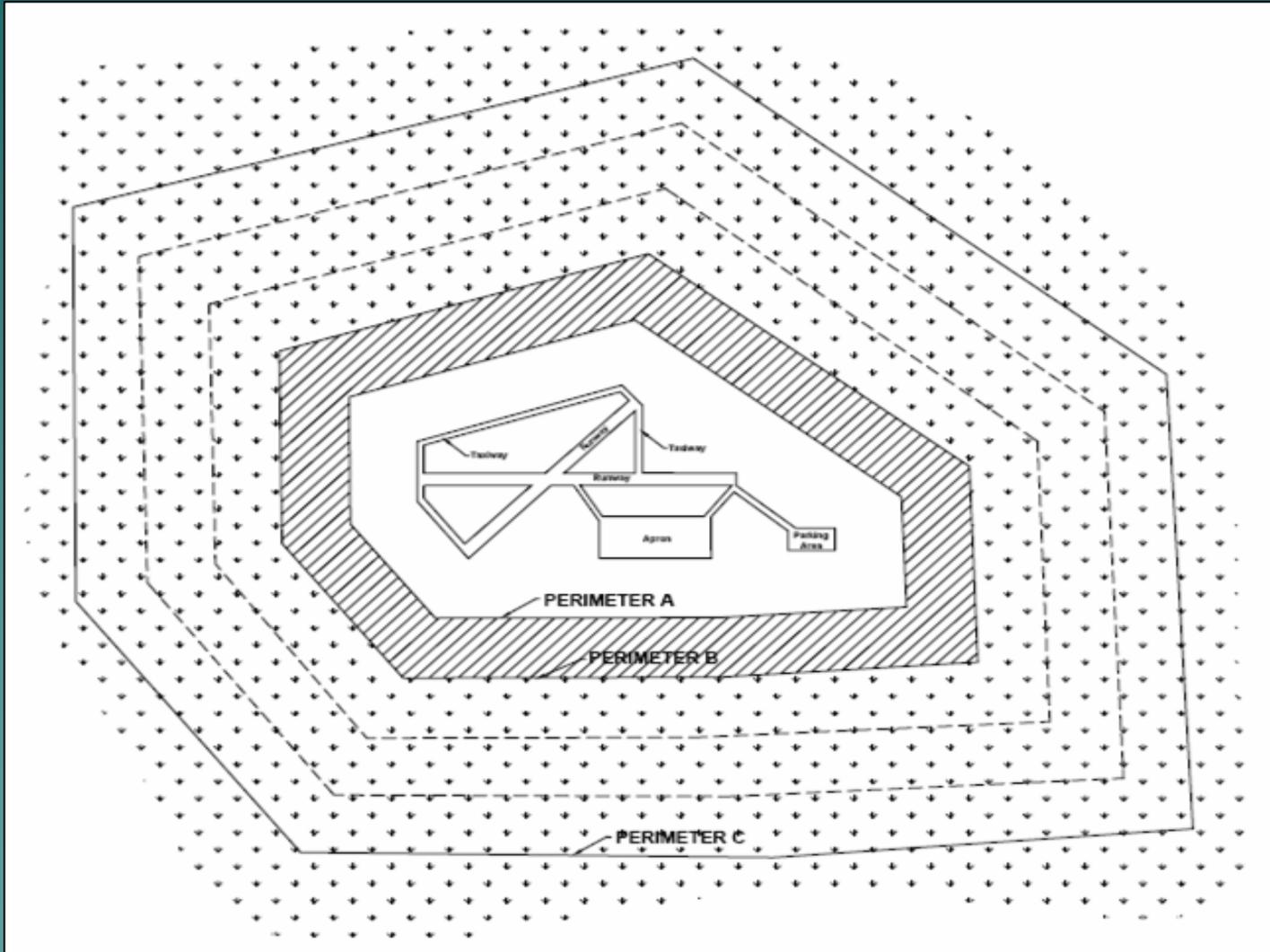
2. **APPLICABILITY.** The Federal Aviation Administration (FAA) recommends that public-use airport operators implement the standards and practices contained in this AC. The holders of Airport Operating Certificates issued under Title 14, Code of Federal Regulations (CFR), Part 139, Certification of Airports, Subpart D (Part 139), may use the standards, practices, and recommendations contained in this AC to comply with the wildlife hazard management requirements of Part 139. Airports that have received Federal grant-in-aid assistance must use these standards. The FAA also recommends the guidance in this AC for land-use planners, operators of non-certificated airports, and developers of projects, facilities, and activities on or near airports.

3. **CANCELLATION.** This AC cancels AC 150/5200-33A, *Hazardous Wildlife Attractants on or near Airports*, dated July 27, 2004.

4. **PRINCIPAL CHANGES.** This AC contains the following major changes, which are marked with vertical bars in the margin:
 - a. Technical changes to paragraph references.
 - b. Wording on storm water detention ponds.
 - c. Deleted paragraph 4-3.b, *Additional Coordination*.

5. **BACKGROUND.** Information about the risks posed to aircraft by certain wildlife species has increased a great deal in recent years. Improved reporting, studies, documentation, and statistics clearly show that aircraft collisions with birds and other wildlife are a serious economic and public safety problem. While many species of wildlife can pose a threat to aircraft safety, they are not equally hazardous. Table 1

Wildlife Hazard Separation Distances



Part 139.337 (c) provides specific guidance as to what facts must be addressed in a WHA.

3-5. WILDLIFE HAZARD MANAGEMENT PLAN (WHMP). The FAA will consider the results of the WHA, along with the aeronautical activity at the airport and the views of the airport operator and airport users, in determining whether a formal WHMP is needed, in accordance with Part 139.337. If the FAA determines that a WHMP is needed, the airport operator must formulate and implement a WHMP, using the WHA as the basis for the plan.

The goal of an airport's Wildlife Hazard Management Plan is to minimize the risk to aviation safety, airport structures or equipment, or human health posed by populations of hazardous wildlife on and around the airport.

The WHMP must identify hazardous wildlife attractants on or near the airport and the appropriate wildlife damage management techniques to minimize the wildlife hazard. It must also prioritize the management measures.

3-6. LOCAL COORDINATION. The establishment of a Wildlife Hazards Working Group (WHWG) will facilitate the communication, cooperation, and coordination of the airport and its surrounding community necessary to ensure the effectiveness of the WHMP. The cooperation of the airport community is also necessary when new projects are considered. Whether on or off the airport, the input from all involved parties must be considered when a potentially hazardous wildlife attractant is being proposed. Airport operators should also incorporate public education activities with the local coordination efforts because some activities in the vicinity of your airport, while harmless under normal leisure conditions, can attract wildlife and present a danger to aircraft. For example, if public trails are planned near wetlands or in parks adjoining airport property, the public should know that feeding birds and other wildlife in the area may pose a risk to aircraft.

Airport operators should work with local and regional planning and zoning boards so as to be aware of proposed land-use changes, or modification of existing land uses, that could create hazardous wildlife attractants within the separations identified in Sections 1-2 through 1-4. Pay particular attention to proposed land uses involving creation or expansion of waste water treatment facilities, development of wetland mitigation sites, or development or expansion of dredge spoil containment areas. At the very least, airport operators must ensure they are on the notification list of the local planning board or equivalent review entity for all communities located within 5 miles of the airport, so they will receive notification of any proposed project and have the opportunity to review it for attractiveness to hazardous wildlife.

Part 139.337 (c) provides specific guidance as to what facts must be addressed in a WHA.

3-5. WILDLIFE HAZARD MANAGEMENT PLAN (WHMP). The FAA will consider the results of the WHA, along with the aeronautical activity at the airport and the views of the airport operator and airport users, in determining whether a formal WHMP is needed, in accordance with Part 139.337. If the FAA determines that a WHMP is needed, the airport operator must formulate and implement a WHMP, using the WHA as the basis for the plan.

The goal of an airport's Wildlife Hazard Management Plan is to minimize the risk to aviation safety, airport structures or equipment, or human health posed by populations of hazardous wildlife on and around the airport.

The WHMP must identify hazardous wildlife attractants on or near the airport and the appropriate wildlife damage management techniques to minimize the wildlife hazard. It must also prioritize the management measures.

3-6. LOCAL COORDINATION. The establishment of a Wildlife Hazards Working Group (WHWG) will facilitate the communication, cooperation, and coordination of the airport and its surrounding community necessary to ensure the effectiveness of the WHMP. The cooperation of the airport community is also necessary when new projects are considered. Whether on or off the airport, the input from all involved parties must be considered when a potentially hazardous wildlife attractant is being proposed. Airport operators should also incorporate public education activities with the local coordination efforts because some activities in the vicinity of your airport, while harmless under normal leisure conditions, can attract wildlife and present a danger to aircraft. For example, if public trails are planned near wetlands or in parks adjoining airport property, the public should know that feeding birds and other wildlife in the area may pose a risk to aircraft.

Airport operators should work with local and regional planning and zoning boards so as to be aware of proposed land-use changes, or modification of existing land uses, that could create hazardous wildlife attractants within the separations identified in Sections 1-2 through 1-4. Pay particular attention to proposed land uses involving creation or expansion of waste water treatment facilities, development of wetland mitigation sites, or development or expansion of dredge spoil containment areas. At the very least, airport operators must ensure they are on the notification list of the local planning board or equivalent review entity for all communities located within 5 miles of the airport, so they will receive notification of any proposed project and have the opportunity to review it for attractiveness to hazardous wildlife.

Land Use Changes



Land Use Changes



Stormwater Management



Stormwater Management



Project Design

OVERALL MASTER PLAN SCHEME 3



Project Design



Outreach-Education



Reducing Runoff



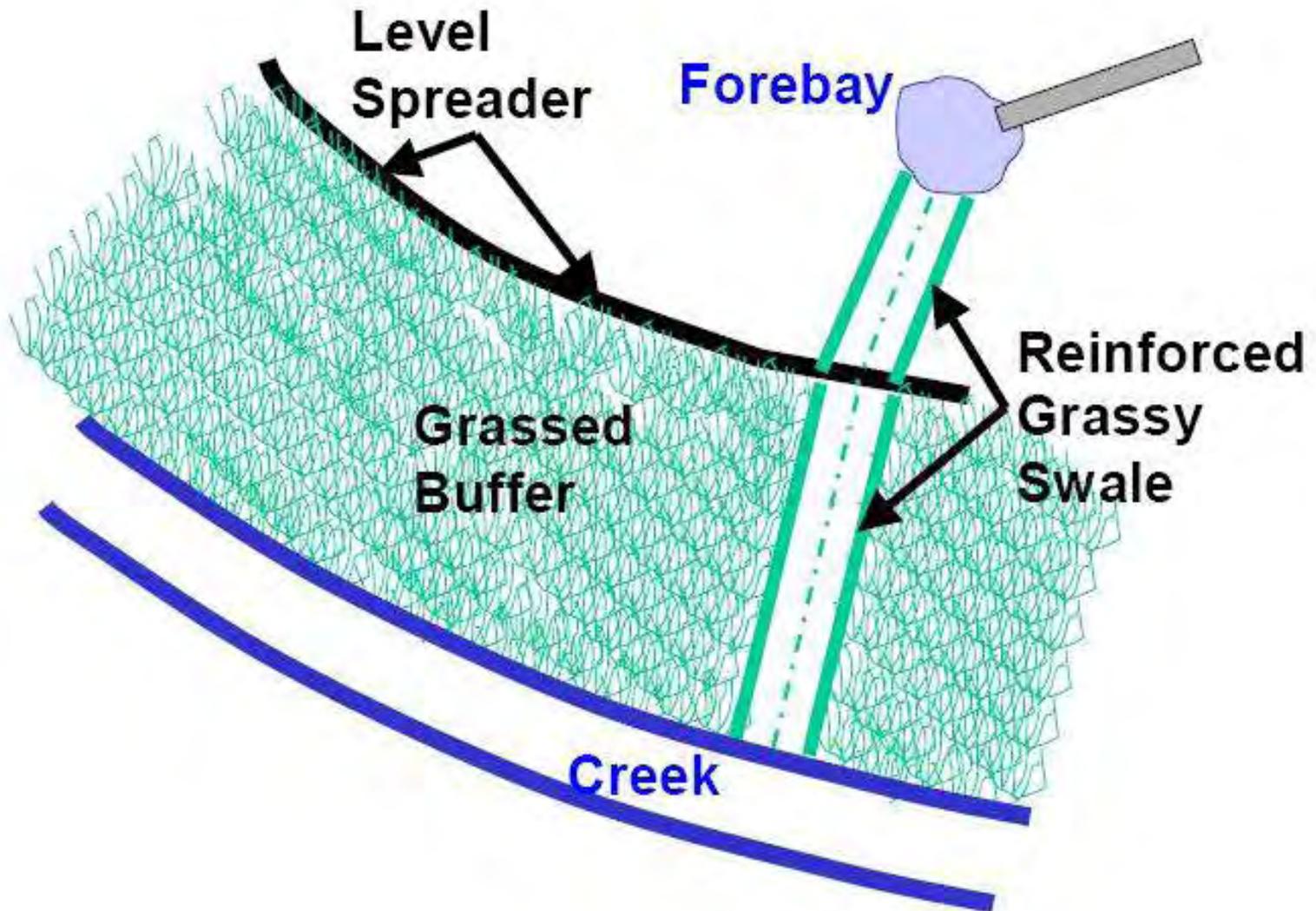
Reducing Runoff



Reducing Runoff



Reducing Runoff



Reducing Runoff



Project Design



08.17.2008

Project Design



Project Design



Project Design



Project Design



Project Design



Project Design



Project Design



Project Design



Project Design



Project Design



Near Airport Development



Planning?



Waterfowl, Wetlands, Stormwater and Airports



Waterfowl

Ducks (2-3 lbs)



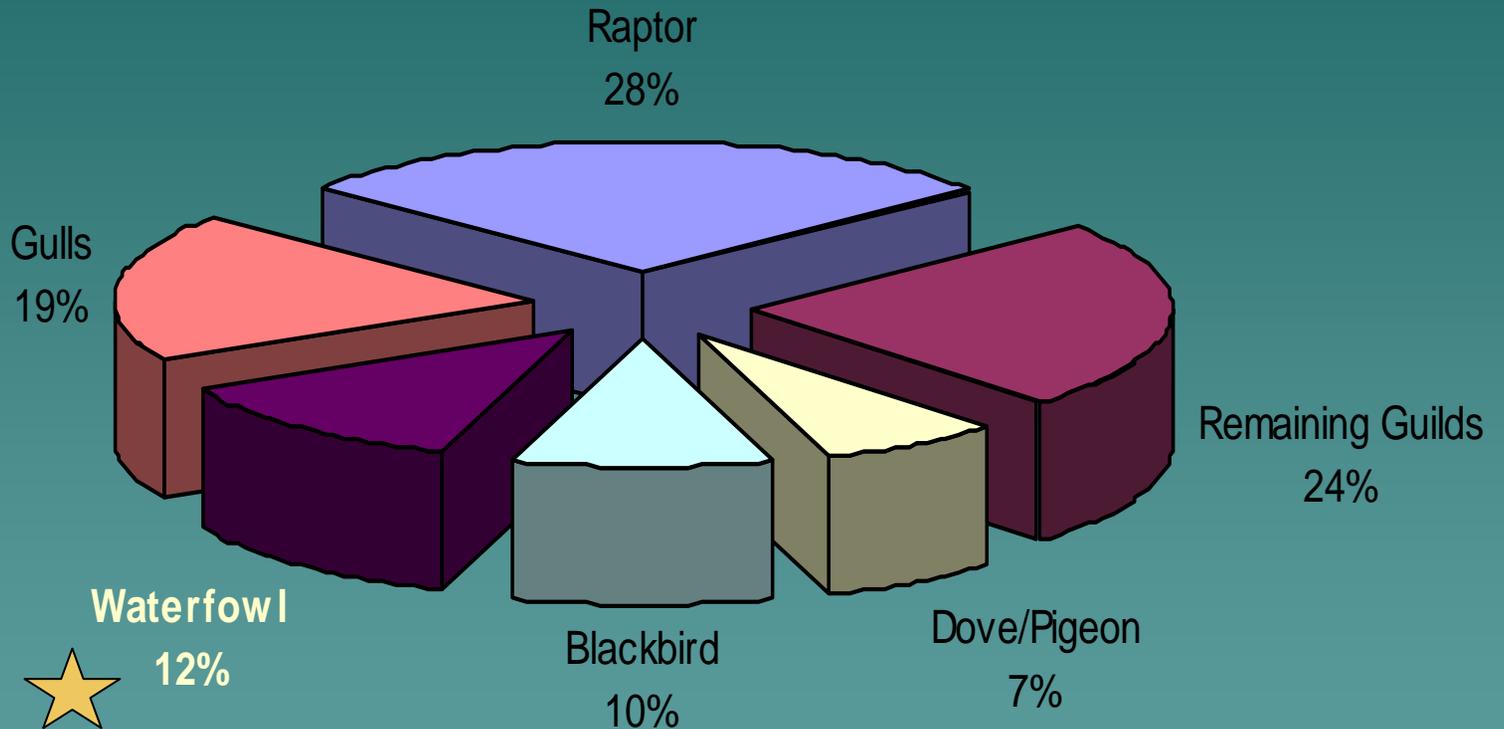
Geese (3-12 lbs)



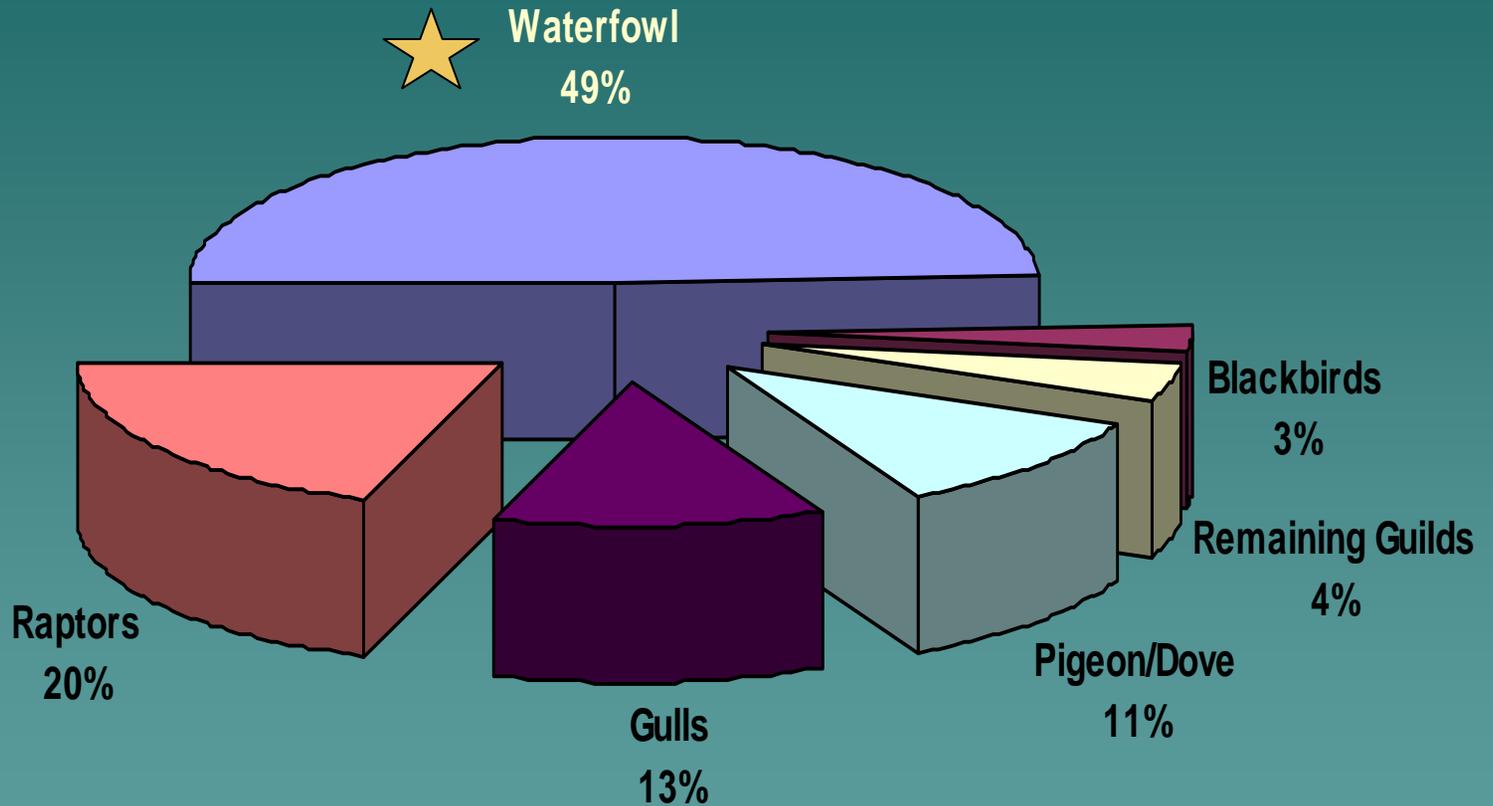
Cormorants (2-5 lbs)



Birdstrikes At ORD



Damaging Strikes



Past Strikes

September 2004
Cormorant Strike



March 2007
Canvasback
Ducks



Wetlands



O'Hare Wetlands

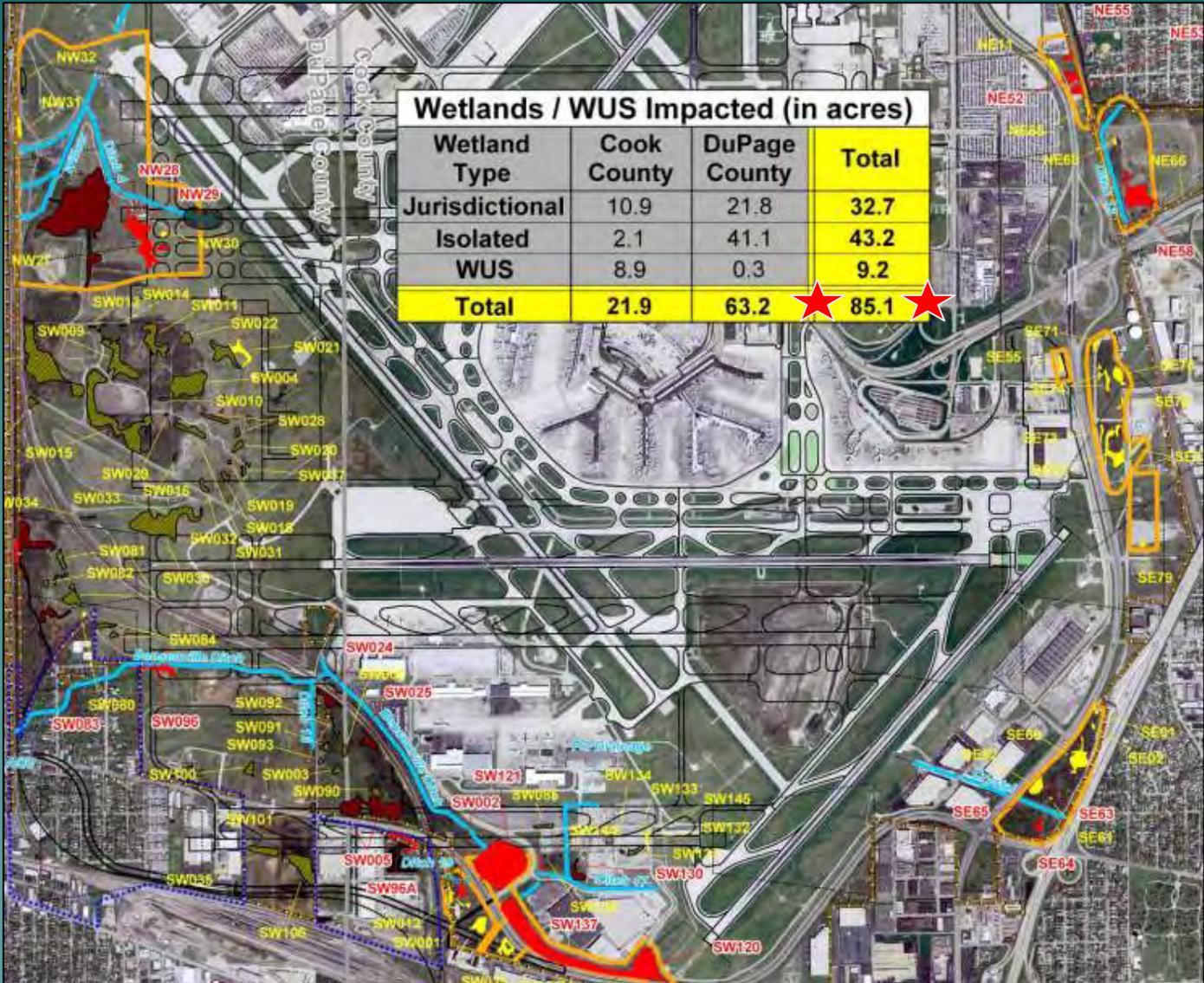
- ◆ 154 acres
- ◆ 40,000 waterfowl dispersed over 10 years



O'Hare Modernization Program



Wetlands



Detention Basins



Lake O'Hare



2001

2008



Changes in Land Cover

Before Construction

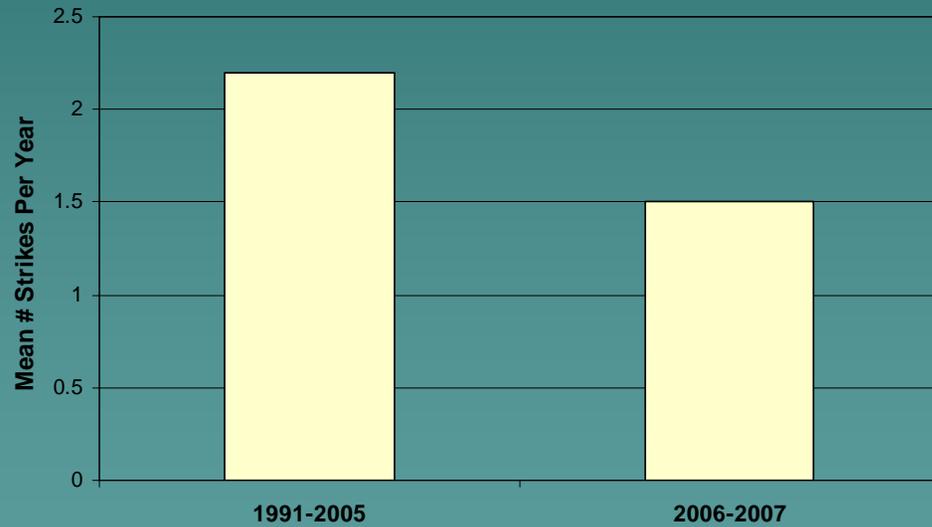


Today



Conclusions

Damaging Waterfowl Strikes



Scott Beckerman, USDA-WS (217) 241-6700

Ryan Swearingin, USDA-WS (773) 686-6742



Protecting People
Protecting Agriculture
Protecting Wildlife



United States Department of Agriculture
Animal and Plant Health Inspection Service

Wildlife Concerns for Environmental Planning and Mitigation

E. Lindsay Butler
Regional Environmental Specialist
Planning and Programming Branch



What are incompatible land uses?

- An incompatible land use is essentially any type of land development which threatens the safe operation of aircraft.
- These uses include developments such as:
 - Residential development
 - Schools & libraries
 - Nursing homes & hospitals
 - Wetlands & open water
 - Landfills & sewage treatment facilities
 - Generators of light emissions and smoke/stream





24th Annual Great Lakes Region
Airports Conference
November 2008



**Federal Aviation
Administration**



U.S. Department
of Transportation

Federal Aviation
Administration

Advisory Circular

Advisory Circular 150/5200-33B

Released 8/28/2007

Subject: HAZARDOUS WILDLIFE
ATTRACTANTS ON OR NEAR
AIRPORTS

Date: 8/28/2007

AC No: 150/5200-33B

Initiated by: AAS-300 **Change:**

1. **PURPOSE.** This Advisory Circular (AC) provides guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. It also discusses airport development projects (including airport construction, expansion, and renovation) affecting aircraft movement near hazardous wildlife attractants. Appendix 1 provides definitions of terms used in this AC.
2. **APPLICABILITY.** The Federal Aviation Administration (FAA) recommends that public-use airport operators implement the standards and practices contained in this AC. The holders of Airport Operating Certificates issued under Title 14, Code of Federal Regulations (CFR), Part 139, Certification of Airports, Subpart D (Part 139), may use the standards, practices, and recommendations contained in this AC to comply with the wildlife hazard management requirements of Part 139. Airports that have received Federal grant-in-aid assistance must use these standards. The FAA also recommends the guidance in this AC for land-use planners, operators of non-certificated airports, and developers of projects, facilities, and activities on or near airports.
3. **CANCELLATION.** This AC cancels AC 150/5200-33A, *Hazardous Wildlife Attractants on or near Airports*, dated July 27, 2004.
4. **PRINCIPAL CHANGES.** This AC contains the following major changes, which are marked with vertical bars in the margin:
 - a. Technical changes to paragraph references.
 - b. Wording on storm water detention ponds.
 - c. Deleted paragraph 4-3.b, *Additional Coordination*.
5. **BACKGROUND.** Information about the risks posed to aircraft by certain wildlife species has increased a great deal in recent years. Improved reporting, studies, documentation, and statistics clearly show that aircraft collisions with birds and other wildlife are a serious economic and public safety problem. While many species of wildlife can pose a threat to aircraft safety, they are not equally hazardous. Table 1



Wildlife Planning on Airports



Advisory Circular 150/5200-33B, *Hazardous Wildlife Attractants on or Near Airports*

- Provides guidance on certain land uses that have the potential to attract hazardous wildlife
- Discusses airport development projects (including airport construction, expansion, and renovation) affecting aircraft movement near hazardous wildlife attractants



A/C 150-5200-33A (cont)

- Waste Disposal Operations
- Water Management Facilities
 - Stormwater and wastewater
- Wetlands
- Dredge spoil containment areas
- Agricultural activities
- Golf courses, landscaping and other land use considerations



Wildlife Hazards

- Include information regarding potential wildlife attractants, such as:
 - Landfills
 - Wastewater treatment facilities
 - Wetlands, wildlife refuges
- Coordinate with the USDA to determine when a Wildlife Hazard Assessment and/or Wildlife Hazard Management Plan is required



FAA – USDA Memorandum of Understanding



U. S. Department
of Transportation
Federal Aviation
Administration

Great Lakes Region
Illinois, Indiana, Michigan,
Minnesota, North Dakota,
Ohio, South Dakota,
Wisconsin

2000 East Devon Avenue
Des Plaines, Illinois 60018

July 11, 2005

T.J. Miller
Chief, Habitat Conservation and Endangered Species Branch
Ecological Services Division
U.S. Fish and Wildlife Service
Bishop Henry Whipple Federal Building
One Federal Drive
Fort Snelling, MN 55111-4056

Subject: Regional U.S. F&WS – FAA Memorandum of Understanding (MOU)

Dear Mr. Miller:

When we spoke together on April 18, we agreed that we would prepare a revised draft Memorandum of Understanding for your review. At that time, we hoped we could complete the redraft within just a few weeks. We underestimated the amount of time it would take to rework it.

However, it is my earnest hope that you will find this document to be considerably simplified. When we last spoke, we discussed the possibility of shifting the legal descriptions of our respective responsibilities to an appendix. As we worked toward that goal, we reached a preliminary conclusion that perhaps we would be best served to simply list the relevant legal and regulatory references in the appendix, and preserve the core elements of our respective duties in the body of the document—but presented in plain language rather than detailed, legalistic references.

As we said before, our objective is to keep the document focused on the underlying purpose of optimizing interagency communication and coordination. However, we have added a good deal of emphasis on each agency's respective responsibilities. We believe the only substantive change proposed in this draft is condensed and more general text regarding Section 4(f), as discussed previously.

We have also respectfully suggested a change in one of the section titles, from "Dispute Resolution" to "Mediation Support." We are not wed to this editorial change, but we would prefer to avoid the phrase "Dispute Resolution" simply because it could be misconstrued as anticipating a level of discord that we would hope never arises.

Because of the magnitude of the proposed changes, we have not redlined this draft relative to your prior draft. We hope this does not prove inconvenient for your review. The document is somewhat shorter—about five and a half pages, plus a single-page Appendix A ("Legislative and Regulatory References").



Applicable Grant Assurances

- **Grant Assurance 5**

Preserving Rights & Powers– Ensure that future/current plans will not deprive the airport of its rights and powers

- **Grant Assurance 20**

Hazard Removal & Mitigation– No hazards to air navigation in the immediate vicinity of the airport over which the airport owner has jurisdiction



Wetlands as Wildlife Attractants

- Wetlands are attractive to many types of wildlife, including many that rank high on the list of hazardous wildlife species
- Impacts to wetlands in Great Lakes Region may be regulated by Federal, State, and local laws

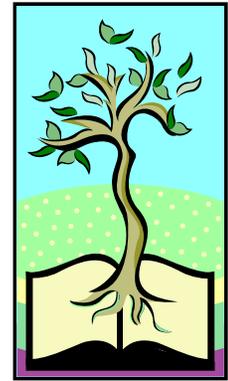


When Mitigation is Necessary

- Mitigation may be necessary when unavoidable wetland disturbances result from new airport development projects or projects required to correct wildlife hazards from wetlands.
- Mitigation must be designed so it does not create a wildlife hazard.
- Wetland mitigation projects should be sited outside of the separations identified in Sections 1-2 through 1-4 of the AC.



Mitigation Options



- Onsite mitigation of wetland functions using existing airport property that includes conservation easements
- Typically the airport operator continues to own the property, and an easement is created stipulating that the property will be maintained as mitigation

Mitigation Recommendations

- Offsite mitigation of wetland functions
- Mitigation banking



