

**DECISION
AND
FINDING OF NO SIGNIFICANT IMPACT
FOR
STATEWIDE BIRD DAMAGE MANAGEMENT
IN MISSOURI**

The U.S. Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS), Wildlife Services (WS) program responds to requests for assistance from individuals, organizations and agencies experiencing damage caused by wildlife. Ordinarily, according to APHIS procedures implementing the National Environmental Policy Act (NEPA), individual wildlife damage management actions may be categorically excluded (7 CFR 372.5(c), 60 Fed. Reg. 6000-6003, 1995). To evaluate and determine if any potentially significant impacts to the human environment from WS planned and proposed program would occur, an environmental assessment (EA) was prepared. The EA documents the need for bird damage management in Missouri and assessed potential impacts of various alternatives for responding to damage problems. The WS proposed action is to continue an Integrated Wildlife Damage Management (IWDM) program for bird damage management in Missouri. Comments received from the public involvement process are addressed in Appendix A of this Decision and FONSI.

The EA analyzes the potential environmental and social effects for resolving bird damage related to the protection of human health and safety, property, agricultural crops, turf, livestock feed, livestock, livestock health, threatened and endangered species, other wildlife, and aquaculture in the state of Missouri. Missouri has an area of 44,124,883 acres; and as of September 6, 2002, WS has agreements with 93 Missouri cooperators covering 32,746 acres. The total land area in question represents less than 0.07% of all Missouri land. (Management Information System (MIS 2002)

WS is the Federal program authorized by law to reduce damage caused by wildlife (Animal Damage Control Act of March 2, 1931, as amended (46 Stat. 1486; 7 U.S.C. 426-426c) and the Rural Development, Agriculture, and Related Agencies Appropriations Act of 1988, Public Law 100-102, Dec. 27, 1987. Stat. 1329-1331 (7 U.S.C. 426c). Wildlife damage management is the alleviation of damage or other problems caused by or related to the presence of wildlife, and is recognized as an integral part of wildlife management (The Wildlife Society 1992). WS uses an Integrated Wildlife Damage Management (IWDM) approach, commonly known as Integrated Pest Management (WS Directive 2.105) in which a combination of methods may be used or recommended to reduce damage. WS wildlife damage management is not based on punishing offending animals but as one means of reducing damage and is used as part of the WS Decision Model (Slate et al. 1992, USDA 1997, WS Directive 2.201). The imminent threat of damage or loss of resources is often deemed sufficient for wildlife damage management actions to be initiated (U.S. District Court of Utah 1993). Missouri land owners have requested WS to conduct bird damage management to protect agricultural resources, livestock, personal property, turf, crops and human health and safety issues. All Missouri WS wildlife damage management is in compliance with relevant laws, regulations, policies, orders and procedures, including the Endangered Species Act of 1973 and Clean Water Act.

Missouri WS works and consults with three state agencies to reduce wildlife damage. The Missouri Department of Conservation (MDC) has the responsibility to manage all wildlife in Missouri, including federally listed Threatened and Endangered (T&E) species and migratory birds, which is a joint responsibility with the US Fish and Wildlife Service (USFWS). Memoranda of Understanding (MOU) signed between APHIS-WS and area state agencies clearly outline the responsibilities, technical expertise and coordination between agencies. A Multi-agency Team with representatives and consultants from each of the aforementioned agencies work with WS to assess the impacts of damage management in Missouri.

Consistency

Bird damage management conducted in Missouri will be consistent with all MOU's and with policies of APHIS-WS, state agencies and the EA. The agencies may, at times, restrict damage management that concerns public safety or resource values.

The analyses in the EA demonstrate that Alternative 1 (Continue the Current Federal BDM Program/ Integrated Wildlife Damage Management 1) best addresses the issues identified in the EA, 2) provides safeguards for public health and safety, 3) provides WS the best opportunity to reduce damage while providing low impacts on non-target species, 4) balances the economic effects to human health and safety, property, agricultural crops, turf, livestock feed, livestock, livestock health, threatened and endangered species, other wildlife, and aquaculture, and 5) allows WS to meet its obligations to the MDC and other agencies or entities.

Monitoring

The Missouri WS program will annually provide the MDC and the USFWS the WS take of target and non-target animals to help ensure the total statewide take (WS and other take) does not impact the viability of wildlife populations as determined by the MDC and the USFWS. In addition, the EA will be reviewed each year to ensure that it and the analysis are sufficient. The number of species lethally removed annually from Missouri will not exceed the optimum number established and managed for by MDC and the USFWS within Missouri.

Public Involvement

WS released a pre-decisional EA (PDEA) on June 10, 2002 and a Notice of the proposed action and invitation for public involvement was placed in the Kansas City Star, St. Louis Dispatch, and the Springfield News Leader with circulation throughout Missouri. A letter noticing the availability of the PDEA was also sent to those persons that have a known interest in the Missouri Bird Damage Management program including Animal Rights groups, and State and Federal Agencies. The 31-day public comment period on the pre-decisional EA ended on July 11, 2002. As a result of this public comment period, one State agency, one Federal agency, three Animal Rights groups and one individual received copies of the PDEA for review. Letters of comment were received from the Humane Society of the United States, MDC and the FWS public during the comment period. WS responses to specific comments are included in Appendix A of this Decision and FONSI.

Major Issues

The following issues were identified as important to the scope of the analysis (40 CFR 1508.25).

- Effects on target wildlife species populations
- Effects on non-target wildlife species populations, including T&E species
- Economic losses to property as a result of bird damage
- Effects on human health and safety
- Effects on aesthetics
- Humaneness and animal welfare concerns of lethal methods used by WS

Affected Environment

The areas of the proposed action include all lands in Missouri. Missouri is located in the Midwest with two major cities on the eastern and western borders. The state is made up of several ecological regions that include but are not limited to the Mississippi River Valley, the Ozarks, rolling hills and prairies. These ecosystems are home to a wide variety of wildlife and habitat. Within the state there are large cities, small towns, rural areas, feedlots, feed production plants, power plants and several airports.

Alternatives That Were Fully Evaluated

The following Alternatives were developed by the Missouri WS office to respond to the issues. Three additional alternatives were considered but not analyzed in detail. A detailed discussion of the effects of the Alternatives on the issues is described in the EA; below is a summary of the Alternatives.

Alternative 1 - Continue the Current Federal BDM Program /Integrated Wildlife Damage Management (No Action/Proposed Action).

The proposed action is to continue an integrated bird management program in. An Integrated Wildlife Damage Management (IWDM) approach would continue which would allow use of any legal lethal and non lethal technique or method, used singly or in combination, to meet requests or needs for resolving conflicts with birds on public and private property. Personnel requesting assistance would be provided with information regarding the use of effective non-lethal and lethal techniques. Lethal methods used and/or recommended by WS would include shooting, trapping, toxicants, DRC-1339 (Starlicide, Avitrol), nest and/or egg destruction or euthanasia following live captures by trapping or use of the tranquilizer alpha-chloralose (A-C). Non-lethal methods used and/or recommended by WS may include habitat alteration, chemical repellents (e.g., methyl anthranilate), wire barriers and deterrents, netting, capture and relocation, and harassment and scaring devices. The implementation of non-lethal methods such as habitat alteration and exclusion-type barriers would be the responsibility of the landowner to implement. BDM by WS would be allowed in Missouri, when requested, where a need has been documented and upon completion of an Agreement for Control. All management actions would comply with appropriate federal, state, and local laws. Appendix B of the EA provides a more detailed description of the methods that could be used or recommended under the proposed action.

Alternative 1 conforms to the MOUs between WS, and state agencies that recognize WS as the primary agency for the management of migratory non-game bird damage in Missouri. Analysis of Alternative 1 showed low level of impact for the target species, non-target species and T&E species.

Alternative 2 - Non-lethal BDM Only By WS

This alternative would require WS to use and recommend non-lethal methods only to resolve bird damage problems. Requests for information regarding lethal management approaches would be referred to MDC, FWS, local animal control agencies, or private businesses or organizations. Individuals might choose to implement WS non-lethal recommendations, implement lethal methods or other methods not recommended by WS, contract for WS direct control services, use contractual services of private businesses, or take no action. Persons receiving technical assistance could still resort to lethal methods that were available to them. WS would not make recommendations to the FWS and MDC regarding the issuance of permits to resource owners to allow them to take birds by lethal methods. Currently, DRC-1339 and Alpha-Chloralose are only available for use by WS employees. Therefore, use of these chemicals by private individuals would be illegal. Under this alternative, Alpha-Chloralose would be used by WS personnel to capture and relocate birds. Appendix B of the EA describes a number of non-lethal methods available for use and recommendation by WS under this alternative.

Alternative 3 - Lethal BDM Only By WS

Under this alternative, WS would provide only lethal direct control services and technical assistance. Technical assistance would include making recommendations to the FWS and MDC regarding the issuance of permits to resource owners to allow them to take birds by lethal methods. Requests for information regarding non-lethal management approaches would be referred to MDC, FWS, local animal control agencies, or private businesses or organizations. Individuals might choose to implement WS lethal recommendations, implement non-lethal methods or other methods not recommended by WS, contract for WS direct control services, use contractual services of private businesses, or take no action. In some cases, control methods employed by others could be contrary to the intended use or in excess of what is necessary. Not all of the methods listed in Appendix B of the EA are available to other agencies or private individuals.

Alternative 3 conforms to the MOUs between WS, and state agencies that recognize WS as the primary agency for the management of birds within Missouri. Analysis of Alternative 3 showed low level of impact for the target species, non-target species and T&E species.

Alternative 4 - No Federal WS BDM (No Action)

This alternative would eliminate Federal involvement in BDM within Missouri. WS would not provide direct operational or technical assistance and requesters of WS services would have to conduct their own BDM without WS

input. DRC-1339 and Alpha-Chloralose are only available for use by WS employees. Therefore, use of these chemicals by private individuals would be illegal. Avitrol could be used by State certified restricted-use pesticide applicators.

This alternative would not allow WS to meet its statutory responsibility for providing assistance or to reduce wildlife damage. In addition, Alternative 4 violates MOUs' between APHIS-WS and state agencies.

Alternatives Considered but not Analyzed in Detail are the Following:

Technical Assistance Only

This alternative would not allow WS operational BDM with in Missouri. WS would only provide technical assistance and make recommendations when requested. This alternative has been determined ineffective based upon the unsuccessful attempts by landowners to conduct BDM prior to WS direct control involvement.

Compensation for Bird Damage Loss

The Compensation alternative would require the establishment of a system to reimburse persons impacted by bird damage. This alternative was eliminated from further analysis because no Federal or State laws currently exist to authorize such action. Under such an alternative, WS would not provide any direct control or technical assistance. Aside from lack of legal authority, analysis of this alternative in the FEIS indicated that the concept has many drawbacks (USDA 1997):

- It would require larger expenditures of money and labor to investigate and validate all damage claims, and to determine and administer appropriate compensation. A compensation program would likely cost several times as much as the current program. In the Missouri WS program, goose damage would likely exceed \$100,000 per year, yet the current non-lethal yet effective WS program of abating such damage only costs less than \$60,000 per year.
- Compensation would most likely be below full market value. It is difficult to make timely responses to all requests to assess and confirm damage, and certain types of damage could not be conclusively verified. For example, it would be impossible to prove conclusively in individual situations that birds were responsible for disease outbreaks even though they may actually have been responsible. Thus, a compensation program that requires verification would not meet its objective for mitigating such losses.
- Compensation would give little incentive to resource owners to limit damage through improved cultural, husbandry, or other practices and management strategies.
- Not all resource owners would rely completely on a compensation program and unregulated lethal control would most likely continue as permitted by state law.
- Compensation would not be practical for reducing threats to human health and safety.

Short Term Eradication and Long Term Population Suppression

An eradication alternative would direct all WS program efforts toward total long term elimination of bird populations on private, Federal, State, and local government lands within entire cooperating counties or larger defined areas in the state.

In Missouri, eradication of native bird species (the starling, English sparrow, and feral domestic pigeon are not native to North America) is not a desired population management goal of State or Federal agencies. Although generally difficult to achieve, eradication of a local population of feral domestic pigeons or starlings may be the goal of individual BDM projects. This is because feral domestic pigeons and starlings are not native to North America and are only present because of human introduction. However, eradication as a general strategy for managing bird damage will not be considered in detail because:

- All State and Federal agencies with interest in or jurisdiction over wildlife oppose eradication of any native wildlife species.

- Eradication is not acceptable to most members of the public.
- Because blackbirds and starlings are migratory and most winter populations are comprised of winter migrants from northern latitudes, eradication would have to be targeted at entire North American populations of these species to be successful. That would not be feasible or desirable.

Suppression would direct WS program efforts toward managed reduction of certain problem populations or groups. In areas where damage can be attributed to localized populations of birds, WS can decide to implement local population suppression as a result of using the WS Decision Model. Problems with the concept of suppression are similar to those described above for eradication.

It is not realistic or practical to consider large-scale population suppression as the basis of the WS program. Typically, WS activities in the State would be conducted on a very small portion of the sites or areas inhabited or frequented by problem species.

Finding of No Significant Impact

The analysis in the EA indicates that there will not be a significant impact, individually or cumulatively, on the quality of the human environment as a result of this proposed action. I agree with this conclusion and therefore find that an EIS need not be prepared. This determination is based on the following factors:

1. Bird management, as conducted by WS in Missouri, is not regional or national in scope.
2. The proposed action would pose minimal risk to public health and safety.
3. There are no unique characteristics such as parks, prime farmlands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected.
4. The effects on the quality of the human environment are not highly controversial. Although there is some opposition to bird damage management, this action is not highly controversial in terms of size, nature, or effect.
5. Based on the analysis documented in the EA and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks.
6. The proposed action would not establish a precedent for any future action with significant effects.
7. No significant cumulative effects were identified through this assessment. The number of birds taken by WS when added to the total known other takes of birds falls well within allowable harvest levels.
8. The proposed activities would not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.
9. An informal consultation with the USFWS confirmed that the proposed action would not likely adversely affect any T&E species.
10. The proposed action would be in compliance with all federal, state, and local laws imposed for the protection of the environment.

Decision and Rationale

I have carefully reviewed the EA and the input from the public involvement process. I believe that the issues identified in the EA are best addressed by selecting Alternative 1 - Continue the Current Federal BDM Program /Integrated Wildlife Damage Management (No Action/Proposed Action) and applying the associated mitigation and monitoring measures discussed in Chapter 3 of the EA-Alternative 1 is selected because (1) it offers the greatest chance at maximizing effectiveness and benefits to resource owners and managers while minimizing cumulative impacts on the quality of the human environment that might result from the program's effect on target and non-target species populations; (2) it presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety; and, (3) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of these issues are considered. Therefore, it is my decision to implement the proposed action as described in the EA.

For additional information regarding this decision, please contact Ed Hartin, APHIS-WS, 1714 COMMERCE COURT, SUITE C, MO 65202, telephone (573) 449-3033.

/s/

09/17/02

Charles S. Brown
Acting Regional Director
APHIS-WS Eastern Region

Date

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- WS Directive 2.105. [The ADC Integrated Wildlife Damage Management Program](#)
- WS Directive 2.201 [ADC Decision Model](#)

Appendix A Response to Public Comments

The USDA-Wildlife Services released the Pre-decisional EA (PDEA) for a 31day public comment period on June 10, 2002. A notice of availability was published in the three major newspapers (Kansas City Star, St. Louis Post Dispatch, & Springfield News Leader) in the state. A letter noticing the availability of the PDEA was also sent to those persons that have a known interest in the Missouri Bird Damage Management program including Animal Rights groups, and State and Federal Agencies. As a result of this public comment period, one State agency, one Federal agency, three Animal Rights groups and one individual received copies of the PDEA for review. Comments on the PDEA were received from the Missouri Department of Conservation, United States Fish & Wildlife Service, and the Humane Society of the United States.

Response to Comments

The following is a summary of the comments received and WS response to specific comments.

Missouri Department of Conservation Comment 1: Missouri Department of Conservation had one specific comment which pertained to the State status of the Osprey. Their comment is: *Page 46, Fish-eating Bird Population Effects: Please revise the text in the last two sentences to read something like the following: "In Missouri, the MDC has undertaken efforts over the past five years to re-establish a breeding population of Ospreys through a reintroduction program. Although information from MDC (Endangered Species Checklist 2002) still currently ranks the osprey as SX, or extirpated from the state, two sightings of active Osprey nesting pairs in Missouri during 2002 will undoubtedly result in a revision of that species rank in the near future." {Additional comment: it does not seem appropriate to lump the Osprey into a category of birds that affect aquaculture in Missouri since they are so rarely encountered.}*

USDA-Wildlife Services Response: WS has revised the paragraph in the section of the EA that discusses Fish-eating Bird Populations Effects to read in a similar fashion. WS recognizes that a resident population of ospreys currently resides and nests in the state and WS takes this into account when making management recommendations. However many other ospreys (non-breeding) migrate through the state and have the potential to cause damage to aquaculture facilities. Based upon past requests for assistance and an increasing number of aquaculture facilities in the State, WS anticipates an increase in requests for assistance dealing with this species.

United States Fish & Wildlife Service Comment 1: United States Fish & Wildlife Service had one comment concerning this document which pertained to the use of non-lethal control measures: Their comment is: *The document addresses many of the concerns related to lethal control of bird damage. There is little discussion, however, on some non-lethal control measures and their effects to fish and wildlife. For example, the document lists a number of habitat modifications that have been used to control nuisance species. To better understand the effect of those measures (e.g. tree removal at some roost or colonial nesting sites, filling waterbodies that attract problems species/numbers, etc.) it would be helpful to know what amount and types of habitat are involved. Activities in urban settings would be far less likely to affect wildlife than those in more rural areas.*

USDA-Wildlife Services Response: Since problems with birds can happen in variety of situations, including rural and urban environments, it is nearly impossible to predict the amounts and types of habitat that are involved. Descriptions of the areas where WS have conducted or may conduct management actions or recommendations are provided in sections 1.3, 1.7, 2.1, 2.2, and 3.2 of the EA. Habitat modification is a method that is mainly used as a recommendation to the landowner with the landowner being responsible for deciding and conducting any specific habitat modifications. Habitat modifications are rarely conducted directly by WS. To reduce or eliminate potential adverse impacts to T&E species, WS follows USFWS recommendations and also provides this information to landowners requesting habitat modification information as appropriate.

Humane Society of the United States (HSUS) Comment 1: *The Pre-Decisional EA is difficult to review. It is unfortunate that this document is not well written and edited. This makes the Pre-Decisional EA difficult to understand,*

and therefore, difficult to adequately review for comment. Problems range from unexplained abbreviations to factual contradictions to obtuse, ungrammatical, therefore incomprehensible writing. The National Environmental Policy Act (NEPA) requires clearly written, concise environmental documents in non-technical language readily understood by stakeholders and the agency decision maker who will sign the Record of Decision (ROD). This Pre-Decisional EA falls short of that requirement. Unfortunately, the apparent lack of care in the presentation of the material in the document does not inspire confidence in the level of care take to gather and analyze that material or to consider the environmental impacts of the proposed action.

USDA-Wildlife Services Response:

This document was prepared and written based on a standard format for writing EA's by the WS program. WS has described its proposed action, gathered, analyzed and presented data in compliance with 40 CFR 1502.15. The information and analysis provided in the EA is supported by over 100 literature citations and has been reviewed by numerous experts for adequacy including several federal and state natural resource agencies

HSUS Comment 2: *The scope of the Pre-Decisional EA is inappropriately broad.*

2a) The limited analysis presented in this Pre-Decisional EA encompassing an entire state is not, by any reasonable definition, the "site-specific analysis" required of this proposed WS action by the 1995 ROD on the Final Environmental Impact Statement under which this Pre-Decisional EA is tiered, Missouri is geographically and biologically diverse. The HSUS strongly believes that WS errs when it attempts to treat such a large area as a homogenous region with bird populations apparently unaffected by difference in habitat type, quality, and quantity; weather conditions; and other factors that act to increase or decrease the effect of WS actions on those populations. The HSUS is particularly concerned that WS will use this Pre-Decisional EA to support control actions against all migratory bird species in Missouri even though WS has identified relatively few species associated with reports of damage.

USDA-Wildlife Services Response: As described in section 3.2.3 of the EA, WS uses a decision model to decide when, where, and how specific bird damage management actions are recommended or implemented by the WS program. This decision model ensures that appropriate actions are taken based upon the site specific damage request. WS only provides assistance on those bird species that have caused or have potential to cause damage. A list of these bird species are provided in section 1.2 of the EA. This list was developed in part based upon past requests for assistance and on damage reports received from cooperators and others throughout the state. WS has adequately analyzed and addressed its intentions of possible take in section 4.1.1.1 of the EA and has provided a description of the need to conduct bird damage management in section 1.3 and 3.2.5 of the EA.

2b) *This Pre-Decisional EA is so broad in its geographic and species coverage that individuals cannot comment effectively or relevantly on the proposed action. Therefore, the purpose of NEPA is thwarted by this Pre-Decisional EA. Based on the size and diversity of the affected area and the large number of affected species potentially subject to control under the proposed action, WS should produce several regional Environmental Assessments. Alternatively, WS must follow this Pre-Decisional EA with an Environmental Impact Statement for Missouri. It would be entirely inappropriate for WS to finalize this Pre-Decisional EA with a Finding of No Significant Impact.*

USDA-Wildlife Services Response: WS has addressed this concern in sections 2.3.1 and 1.7.3 of the EA.

HSUS Comment 3: *The Pre-Decisional EA lacks necessary information and analysis and is inappropriately vague.*

3a) *The Pre-Decisional EA fails to fully explain what procedures WS will use under either the proposed action or the alternatives to evaluate damage. None of these important concerns is adequately discussed: the specific recommendations typically made in damage situations, how a damage control program will typically be applied, the costs of various program alternatives, the cost-effectiveness of the program, and the duration of control actions using different approaches.*

USDA-Wildlife Services Response: As described in section 3.2.3 of the EA, WS uses a decision model to decide when,

where, and how specific bird damage management actions are recommended or implemented by the WS program. This decision model ensures that appropriate actions are taken based upon the site specific damage request.

3b) *The Pre-Decisional EA is weak in informing the public about what it will do in response to requests for assistance with bird conflicts. The description of the proposed action is insufficient leaving the public with no clear idea of what action the program may take in response to requests for assistance. At the least, the EA should provide examples of past efforts that span the range of species, conflicts and responses. This information should not be limited to vague, qualitative statements such as “few,” “often,” or similar wording but provide quantitative information on how many and how often each action was taken. Also, the extent to which non-lethal methods were attempted before lethal methods were used, whether by WS or by the requested should be included. Simple reference in the Pre-Decisional EA to the WS Decision Model, a one-page seven-box, extremely simplistic diagram, is not sufficient in any way to describe this proposed act.*

USDA-Wildlife Services Response: Specific examples of WS direct operational and technical assistance program are provided in sections 1.3 and 3.2.5 of the EA. As described in these sections of the EA, WS provides a variety of bird damage management assistance including lethal and non-lethal methods in a variety of situations.

Requests for information on the extent to which non-lethal methods were attempted before lethal methods were used, whether by WS or persons requesting assistance is not a documented process. The decision when to use or recommend a specific method, whether lethal, non-lethal or a combination of the two is a thought process that is common to most if not all professions. A description of this thought process is found in section 3.2.3 of the EA. For a more detailed description of the process, please review the WS Final Environmental Impact Statement Volume 2 pages 23-34.

3c) *What should be an important section, 2.1 “Affected Environment,” is noticeably lacking in needed information. The Pre-Decisional EA characterizes the affected natural and human environment of the entire state of Missouri in only four sentences. This section should provide the baseline to which the information in each of the next sections is compared. Every element of the natural and human environment that may be affected by the proposed action and any alternatives needs to be concisely and accurately characterized here. The most egregious omission in section 2.1 is current and historic information of bird populations. Stakeholders and the agency decision maker cannot judge the significance of an impact affecting several thousand birds of one species without information to place that in context. General statements suggesting that there are many birds so the numbers affected are not significant are not adequate.*

USDA-Wildlife Services Response: Sections 2.3.1 and 2.3.2 of the EA directly addresses HSUS concerns to the effectiveness of having a state wide EA and impacts to biodiversity. WS addresses potential impacts, and current and historic information of target and non-target wildlife populations in sections 4.1.1 and 4.1.2 of the EA. The information provided in these sections show the WS bird damage management program has and will continue to have minimal impacts on wildlife species in the state of Missouri.

3d) *It is the purpose of an Environmental Assessment to fairly present and analyze all the expected impacts so a determination can be made about their significance. This EA does not always do that. In some instances, it merely declares that impacts are not significant without supporting the declaration.*

USDA-Wildlife Services Response: WS follows all applicable laws, regulations, and guidelines in analyzing potential impacts of their actions, including those established by NEPA. In making an informed decision of potential environmental impacts, WS uses the best available scientific information, data and expert advice. Appendix A of the EA provides a list over 100 documents that are used and referenced throughout the EA for analyzing potential impacts of the proposed program and Appendix C of the EA provides a list of the persons consulted in the development of the EA. Potential impacts are systematically analyzed in Chapter 4 of the EA. Each issue is fully explained and analyzed against each alternative to allow the reader an objective way to evaluate potential outcomes of each alternative. By conducting such a systematic and objective analysis, and using the best available scientific information, data and expert advice, WS is able to make an informed decision as required by NEPA.

HSUS Comment 4: *The Pre-Decisional EA inappropriately glosses over potentially controversial aspects of the proposed action.*

4a) *Section 4.1.1.1, discussing the proposed action, states the “WS activities..... have been more than 99 percent non-lethal.....” This statement is an example of the poor editing in the document since the numbers presented in Table 4.2 do not match this statement, although the difference is not great. In addition, the numbers in Tables 4-1 and 4.2 should agree with each other but for four species, they do not.*

USDA-Wildlife Services Response: The above quote is being taken out of context by HSUS. This statement represents WS work as a whole, giving a specific example of WS efforts to incorporate IWDM and not “killing” everything in site. Three of the four discrepancies were simple adding errors of data, the fourth deals with geese with egg destruction. Since egg destruction is viewed by some as not a true form of lethal control, egg destruction was not applied to Canada geese in Table 4-2 so that a more accurate account of living birds killed was presented.

4b) *More importantly, the statement on the non-lethal proportion of WS activities glosses over the very high proportion of birds of certain species that were killed. Pigeons and English sparrows were killed 99 percent of the time according to Table 4-2. Very large numbers of starlings were also killed. WS killed an average of about 1,700 starlings and about 1,650 pigeons a year. In total, WS killed nearly 15,600 birds during the years reported or about 3,900 a year. These facts need to be noted.*

USDA-Wildlife Services Response: Due to the nature and habits of some species (e.g. pigeons, English sparrows) as well as site specificity, lethal control is often the only effective method of control available. Starlings are a non-native species, whose numbers continue to expand. Even with WS removal of 1700± starlings a year, this rate is a 1:3 lethal to non-lethal control measure or 25% of the problem population. This take would be considered compensatory mortality since the annual mortality rate of starlings, has been reported at 50-60%. Furthermore, the lumping of all species into one large group of total take does not accurately portray program affects on populations.

4c) *Both Table 4-1 and 4-2 must present totals. For Table 4-1, a column totaling birds killed by species and a row totaling killed by method are needed. For Table 4-2, columns totaling birds killed and birds dispersed by species and a row totaling birds killed dispersed by year are needed. The lack of these summary numbers tends to obscure the impacts of the proposed action.*

USDA-Wildlife Services Response: It is WS opinion that the Tables are sufficient without grand totals.

4d) *The Pre-Decisional EA’s description of the manner of death caused by DRC-1339 inappropriately suggests that more is known about this than is the case. We object to the statement “DRC-1339 acts in a humane manner producing a quiet and apparently painless death” as unsupported by science. WS does not know that DRC-1339 causes a painless death. On the contrary, a slow death due to heart and kidney damage may be very painful, despite the tendency of birds not to show obvious symptoms.*

USDA-Wildlife Services Response: DRC-1339 is a highly researched toxicant that is available for use by WS. The death process and effects of DRC-1339 have been a part of these studies. Merriam- Webster defines “humane” 1: marked by compassion, sympathy, or consideration for humans or animals. Since WS evaluates each and every situation for the most effective and appropriate method for resolution of the problem, and that part of the WS decision making process, WS does consider the animal and how to minimize stress and pain; WS maintains that DRC-1339 is a humane method. Studies show that DRC-1339 is a safe method that produces a non-violent and painless method with minimal effects to non-target species (Blanton, Constantin and Williams 1992; Williams and Corrigan 1994; Decino, Cunningham and Schafer 1966). However, WS recognizes that everyone has their own opinions of what humane is, WS has reworded the objected phrase to read “DRC-1339 acts in a manner producing a quiet and non-convulsive death.

HSUS Comment 5: *The information presented in the Need for Action section does not support the need for WS to take the proposed.*

5a) *The Need for Action section is generally disappointing for a number of reasons. An example of the poor writing in this document makes it difficult to determine the dollar value WS reports for bird damage. This is a significant point because its need to undertake the proposed action is a large part on this point. It is not clear whether the dollar value of damage attributed to waterfowl is included in the dollar value attributed to all birds, or whether waterfowl are being considered separately from all other birds. As written, this section states bird other than waterfowl (including starlings, blackbirds, and sparrows) only caused \$200,000 worth of damage for the entire five-year period or only \$10,000 worth a year.*

USDA-Wildlife Services Response: WS clearly and concisely relays the dollar value by resource. In situations where individual species are responsible for large sums of damage to a particular resource, that species is discussed in detail. WS questions the figures quoted above by the HSUS. Nowhere in the Need for Action of this document has WS used either of the quoted figures.

5b) *The section devoted to “Need for Bird Damage Management to Protect Human Health and Safety” contains much superfluous material that can only be interpreted as an alarmist attempt to generate fear of disease from birds in the public. Listing all the diseases “associated” with certain bird species that may also affect humans and/or livestock at risk of all these diseased. However as you know, susceptibility of birds to a particular disease does not mean that the birds are actually infected with the disease, or that they can transmit the disease to humans and/or livestock. Diseases that infect both humans or livestock and birds are often transmitted to both by another vector. This section also lacks any attempt to place this information in context by providing the relative frequency with which birds, humans, or livestock are found to have diseases.*

USDA-Wildlife Services Response: Currently there is no nationwide record or studies available to track much of this data. Only current high profile diseases are getting the attention requested, with the foremost being West Nile Virus and St. Louis encephalitis. Both of these diseases, WS actively participates in the surveillance and monitoring with in birds as stated in this section.

5c) *The Pre-Decisional EA states that in “most cases...no actual cases of bird transmission of disease to humans have been proven to occur.” This statement is misleading. If there have been “cases in which health concerns” were “a major reason for requesting BDM: and wild bird transmission of disease to humans was proved, please cite those cases. This statement suggests that such transmission has occurred, but not proved. If there is no evidence that transmission has occurred, WS cannot use vague statements that suggest it has to support for the proposed action.*

USDA-Wildlife Services Response: It has been clearly documented that wildlife are host to diseases communicable to humans and livestock. Pigeons, in particular, have been rigorously examined for presence of organisms of medical importance. The best known case of pigeon caused animal health problems is that of the outbreak in domestic fowl of paramyxovirus in Britain in 1983 (Johnston 1995). The fungus *Histoplasma capsulatum* has been found in living piles of pigeon manure containing the right moisture content. Given the close proximity of manure to some activities of humans, the possibility of transmission of histoplasmosis to humans is reasonably high. Histoplasmosis infections in humans have been traced to cleanup programs of accumulations of pigeon and European Starling (*Sturnus vulgaris*) dung around a variety of public buildings in Wisconsin, Ohio, Arkansas, and Missouri (Johnston 1995; Weber 1979; Murton 1971).

HSUS Comment 6: *Humaneness is not in the eye of the human beholder. An action’s economic cost is irrelevant to its humaneness.*

Section 2.2.6, discussing Humaneness and Animal Welfare, suggests that the humaneness of human action is some how related to the human’s perception of the action. This is false.

The humaneness (inflicting a minimum of pain) of an action on an animal may be very difficult to measure. An animal's suffering from a human's action is an objective fact even when the magnitude of suffering is difficult for the human to measure. The human's perception of the animal's suffering or lack of suffering has no impact on the actual suffering the animal experiences. In studies of the humaneness of various traps, for example, the variable of humaneness is frequently operationalized as the time –to –loss-of sensibility or loss-of-consciousness without fear, distress, or recovery. The fact that the concept of humaneness has been studied objectively for trapped animals reinforces the point that other wildlife scientists and professionals acknowledge that the humaneness of a control method—or the suffering induced by the method—exists independently of the perceiving human.

NEPA does not require that agencies conduct extensive research to measure this difficult quantity. However, NEPA does require that agencies; environmental documentation accurately indicate where information is missing or unobtainable. If WS simply has no data regarding the humaneness of control methods, it must be stated.

Similarly, the “constraints imposed by current technology and funding” are irrelevant in a discussion of humaneness. Technology and funding should be discussed in their proper sections. An action is not more or less humane but easier and/or less costly alternative, NEPA does not forbid it. NEPA does require that this document clearly and honestly characterize that choice for the public and decision maker.

This section further states that WS has “improved selectivity and humaneness of management techniques through research and development.” As always we are pleased to read this. As we have in the past, however, we ask again for details of this research. An appendix or at minimum, reference to where details of this research can be found outside the Pre-Decisional EA should be added.

USDA-Wildlife Services Response: As stated in section 2.2.6 of the EA, WS recognizes that the issue of humaneness and animal welfare is an important but very complex issue that can be interpreted in a variety of ways. We recognize that some people will disagree and are un-swayed by the information provided in this section of the EA. WS is very concerned about animal welfare and where possible, more humane methods are used to capture or kill animals. The decision making process involves tradeoffs between the aspects of pain and humaneness. An objective analysis of this issue must consider not only the welfare of wild animals but also the welfare of humans if damage management methods were not used. Therefore, humaneness, in part, appears to be a person's perception of harm or pain inflicted on an animal, and people may perceive the humaneness of an action differently. The challenge in coping with this issue is how to achieve the least amount of animal suffering within the constraints imposed by current technology and funding. WS personnel are experienced and professional in their use of management methods so they are as humane as possible under the constraints of current technology, workforce, and funding.

HSUS Comment 7- Additional Concerns

7a) *Section 2.2.4.1, discussing Avitrol, should state that this chemical control kills birds. Other sections of the Pre-Decisional EA more accurately describe this method but this section is misleading.*

USDA-Wildlife Services Response: This is the opinion of the HSUS. In section 2.2.4.1 of the EA, WS clearly describes the intended use of Avitrol, with Appendix B of this document accurately describing it in detail.

7b) *In section 2.3.5, the discussion of compensatory mortality is poorly explained for the lay reader. Please explain why and how this occurs, citing the science supporting this phenomenon in birds.*

USDA-Wildlife Services Response: Compensatory mortality: The concept that one kind of mortality largely replaces another kind of mortality in animal populations. In simple logic, an animal dying from one cause (e.g., hunting or disease) cannot die from another cause (e.g., predation or starvation), so one source of mortality compensates for the other. Thus, the total mortality rate normally is not greatly influenced by changes for any single cause of death. For example, if predation takes 10 percent of a population, and disease takes 20 percent, total natural mortality for the year is 30 percent. If in the next year, predation takes 25 percent and disease takes 5 percent, the effort of predation is said to be

compensatory. Of importance, the total annual mortality rate may remain essentially unchanged with or without legal hunting (Robinson & Bolen 1989).

Mortality rates in birds have been documented to be extremely high. As a rule, somewhere between 70 and 80 percent of quail die every year (Rosene 1984). In turkeys mortality rates range between 30 and 60 percent, with Missouri having a variation among years being statistically significant. The annual survival rate in 1987 (0.693) was higher than in either 1984 (0.445) or 1986 (0.452) (Dickson 1992). Great Tit populations showed the average percentage of juveniles that survive annually (22 percent, with a range of 4 to 40 percent) is less than half that of adults (48 percent of the females, 56 percent of the males, with a range of 40 to 81 percent) (Gill 1989).

7c) Sections 3.2.3 and 3.2.4 state that the “Decision-Model is not a documented process, but a mental problem-solving process.” However, the public has no way to determine the extent to which WS personnel actually use this model. Please address this.

USDA-Wildlife Services Response: The 1994/97 ADC EIS describes a 7-step “Decision Model” or sequence of steps WS program managers go through to determine the appropriate response to a request.

7d) In section 3.2.5.2, under “Other Repellants” it is not clear what is meant by “measure all.”

USDA-Wildlife Services Response: The use of “measure all” was a spelling error that should read Mesurool. This is a chemical pesticide whose active ingredient is Methylcarbamate.

7e) Section 3.2.5 provides three examples of direct operational and technical assistance but does not provide any information about how commonly each of these occurs. Please indicate the number of complaints received under each of these three types of complaints. In addition, please indicate whether these are the most common types or complaints. The section goes on to describe common scenarios in dealing with each of these three examples. Please indicate how frequently WS implements each action in the scenarios.

USDA-Wildlife Services Response: This section was provided to give the reader and decision maker clear examples of specific projects that the MO WS program has conducted in past and also to provide examples of similar projects that may occur in the future. Specific types of requests for WS assistance can be found in section 1.3 of the EA.

7f) In section 3.4 on Mitigation Measure, The HSUS is reassured to read the WS personnel are required to obey relevant laws and regulations when conducting their professional activities. However, obeying laws and regulations is not a mitigation measure for an environmental impact. Obeying laws and regulations is a minimum standard expected from all public employees and all citizens. Please remove these “filler” mitigation measures.

USDA-Wildlife Services Response: These are standard mitigation measures used by WS.

7g) In section 4.1.1.1, Figure 3-2 is referenced but is not included in the document.

USDA-Wildlife Services Response: This is an error in editing. Figure 3-2 and the associated numbers have been corrected, to read Table 4-2.

7h) The unnumbered subsection on Canada geese states that WS is currently killing fewer than 30 geese a year but may kill as many as 1,000 a year under the proposed action. Please explain why such a substantial increase may occur.

USDA-Wildlife Services Response: An EA is a planning document that is used to analyze potential environmental impacts of current and future actions. The number of Canada geese that WS indicated in the EA is based upon an anticipated increase in requests for WS assistance. This increase is based in part on the exponential increase in the resident Canada goose population.

7i) *On page 46 in an unnumbered subsection on pigeons the Pre-Decisional EA states that WS killed 7,085 pigeons but Table 4-2 states WS killed 6,625 and Table 4-1 states WS killed 7,085. Please clarify this apparent discrepancy.*

USDA-Wildlife Services Response: This was an error in adding, which has been corrected

7j) *Also, on page 46 in an unnumbered subsection on fish-eating birds the Pre-Decisional EA states the number of times WS gave technical assistance and the number of times WS undertook direct control. This type of information would greatly improve all other similar sections. Please revise other sections to include this type of information.*

USDA-Wildlife Services Response: WS concurs with HSUS that this type of information is useful and has added the information in the appropriate sections.

7k) *Page 49 unnumbered sections on horned larks and swallows state that WS killed 132 and hazed 4,350 horned larks and that it killed 116 and hazed 2,000 swallows. Information on these species is not included in Tables 4-1 and 4-2 despite the fact that the total numbers controlled for each of these species is considerably more than the numbers of several of the species that are included in those tables. Please revise Tables 4-1 and 4-2 to include horned larks and swallows.*

USDA-Wildlife Services Response: These species were accidentally removed from the tables. WS has corrected the error.

7l) *The unnumbered subsection on Other Target on page 49 contradicts earlier sections of the Pre-Decisional EA. This section states that killed birds will be limited to those listed in section 1.2. However, section 1.2 states specifically that the list only includes those species most commonly or most likely controlled and that any species may be controlled under this EA. Please clarify.*

USDA-Wildlife Services Response: Section 1.2 of the EA does not confine/restrict WS activities to the specific species listed in the latter part of this section. Section 1.2 of the EA reads ...” WS activities in Missouri to manage damage caused by bird species or species groups that include, but are not necessarily limited to the following.....”

7m) *Again, thank you for the opportunity to provide these comments. Clearly, given the concerns we have outlined, this Pre-Decisional EA should, at the minimum, be revised and re-released as a Pre-Decisional EA. It would be more appropriate to withdraw this document and prepare either several regional EAs or an EIS for the statewide program.*

USDA-Wildlife Services Response: This is the opinion of the HSUS.