

DECISION AND FINDING OF NO SIGNIFICANT IMPACT ENVIRONMENTAL ASSESSMENT: BIRD DAMAGE IN THE STATE OF KANSAS

PURPOSE AND NEED FOR ACTION

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program prepared an Environmental Assessment (EA) "Bird Damage Management in Kansas" to analyze the potential impacts to the quality of the human environment from conducting bird damage management (BDM) in the state of Kansas (USDA 2019). The EA and this Decision ensure WS-Kansas complies with the National Environmental Policy Act (NEPA), with the Council on Environmental Quality guidelines (see 40 CFR 1500), and with the APHIS' NEPA implementing regulations (see 7 CFR 372).

The EA addresses the need to manage damage and threats of damage associated with several bird species, including European Starling (*Sturnus vulgaris*), Feral Pigeon (*Columba livia*), Mourning Dove (*Zenaidura macroura*), Eurasian Collared Dove (*Streptopelia decaocto*), House Sparrow (*Passer domesticus*), Red-winged Blackbirds (*Agelaius phoeniceus*), Brown-headed cowbirds (*Molothrus ater*), Common Grackles (*Quiscalus quiscula*), Great Blue Herons (*Ardea herodias*), Little Blue Herons (*Egretta caerulea*), Green Herons (*Butorides striatus*), Great Egrets (*Casmerodius albus*), Snowy Egrets (*Egretta thula*), Cattle Egrets (*Bubulcus ibis*), Turkey Vultures (*Cathartes aura*), American Kestrel (*Falco sparverius*), Red-tailed Hawks (*Buteo jamaicensis*), Northern Harrier (*Circus cyaneus*), Ferruginous Hawk (*Buteo regalis*), Canada Geese (*Branta canadensis*), Mallard (*Anas platyrhynchos*), American White Pelican (*Pelecanus erythrorhynchos*), Double-crested cormorant (*Phalacrocorax auritus*), American Crow (*Corvus brachyrhynchos*), Ring-billed Gull (*Larus delawarensis*), and Franklin's Gull (*Larus pipixcan*). In addition to those species, WS-Kansas may also receive requests for BDM assistance associated with several other bird species, but requests associated with those species would occur infrequently and/or would involve a small number of individual birds of a species. BDM associated with those species would occur primarily at airports where individuals of those species become a hazard to aircraft. Appendix B in the EA contains a list of species that WS could address in low numbers and/or infrequently when those species cause damage or pose a threat of damage.

WS-Kansas previously developed an EA that analyzed the need for BDM associated with several bird species in Kansas (USDA 2008). Because the new EA re-evaluated activities conducted under the previous EA to address the new need for action and the associated affected environment, the outcome of this Decision for the new EA will supersede the previous 2008 EA.

The need for action identified in Section 1.3 of the new EA arises from requests for BDM assistance. The EA evaluates the need for action for BDM, the potential issues associated with managing bird damage, and the environmental consequences of conducting different alternatives to meet the need for action while addressing the identified issues. WS defined the issues associated with meeting the need for action and identified preliminary alternatives through consultation with the US Fish and Wildlife Service (USFWS) and Kansas Department Wildlife, Parks and Tourism (KDWP). The EA analyzes four alternatives to meet the need for action based on the issues identified in section 2.1 of the EA.

A discussion of WS' authority and the authority of other agencies, as those authorities relate to BDM, occurs in Section 1.7 of the EA. Section 1.7.2 includes several laws and statutes that authorize, regulate, or otherwise affect WS' activities. WS would comply with all applicable federal, state, and local laws and regulations in accordance with WS Directive 2.210.

AFFECTED ENVIRONMENT AND ISSUES

Bird damage or threats of damage could occur statewide in Kansas wherever those species occur. Those bird species addressed in the EA are capable of utilizing a variety of habitats in the state. Some of the species of birds addressed in the EA occur throughout the year across the state where suitable habitat exists for foraging, nesting, and shelter. Some of the species are gregarious (*e.g.*, form large flocks) during the migration periods or during the nesting periods, which can increase damage and threats of damage during certain times of the year.

Issues are concerns regarding potential effects that might occur from a proposed activity. Federal agencies must consider such issues during the NEPA decision-making process. Section 2.1 of the EA describes the issues considered and evaluated in detail by WS-Kansas as part of the decision-making process. In addition to those issues analyzed in detail, WS identified several issues during the development of the EA but WS did not consider those issues in detail. Section 2.2 of the EA discusses the rationale for the decision not to analyze those issues in detail. WS-Kansas also made the EA available to the public for review and comment through notices published in local media and through direct notification of interested parties. WS made the EA available to the public for review and comment by a legal notice published in the *Topeka Capital Journal*, on the APHIS website on August 28, 2019 and on the federal e-rulemaking portal at the regulations.gov website beginning on August 27, 2019. WS also sent a notice of availability directly to agencies, stakeholders, organizations, and individuals with probable interest in BDM in the state through the gov. delivery portal on August 28, 2019. The opportunity for public comment closed on October 4, 2019.

During the public comment period, WS-Kansas only received four comment submissions on regulations.gov, none of which contained any substantive information. Comments that oppose or support an agencies actions without any substantive information included in the comment do not warrant an agency response.

ALTERNATIVES

The EA evaluated four alternatives in detail to respond to the need for action discussed in Chapter 1 and the issues identified in Chapter 2 of the EA. Section 3.1 of the EA provides a description of the alternatives evaluated in detail. A detailed discussion of the effects of the alternatives on the issues occurs in Chapter 4 of the EA. WS considered additional alternatives but did not evaluate those alternatives in detail with the rationale provided in Section 3.4 of the EA. WS would incorporate all of the operating policies discussed in Section 3.5 if the decision-maker selects the proposed action alternative (Alternative 1). If the decision maker selects the nonlethal BDM only alternative (Alternative 2) or the technical assistance only alternative (Alternative 3), WS-Kansas operating policies would be more restrictive. If the decision-maker selected the no involvement by WS alternative (Alternative 4), the lack of assistance by WS would preclude the employment or recommendation of those operating policies by WS.

ENVIRONMENTAL CONSEQUENCES

Section 4.1 of the EA analyzes the environmental consequences of each alternative as those alternatives relate to the issues by analyzing the environmental consequences of each alternative in comparison to determine the extent of actual or potential impacts on the issues. Section 4.1 of the EA provides information needed to make informed decisions when selecting the appropriate alternative to address the need for action. The proposed action/no action alternative (Alternative 1) served as the baseline for the analysis and the comparison of expected impacts among the alternatives.

The following resource values in Kansas are not expected to be significantly impacted by any of the alternatives analyzed in the EA: soils, geology, minerals, water quality/quantity, flood plains, wetlands, critical habitats (areas designated for threatened or endangered species), visual resources, air quality, prime and unique farmlands, aquatic resources, timber, and range. The activities proposed in the alternatives would have a negligible effect on atmospheric conditions, including the global climate. Meaningful direct or indirect emissions of greenhouse gases would not occur because of any of the alternatives. Those alternatives would meet the requirements of applicable laws, regulations, and Executive Orders, including the Clean Air Act. The discussion below provides a summary of the environmental consequences of the alternatives discussed in the EA for each of the issues analyzed in detail.

Issue 1 - Effects of BDM on Target Bird Species Populations

If WS implemented Alternative 1, WS would incorporate non-lethal and lethal methods into an integrated methods approach in which WS' personnel could employ all or a combination of methods to resolve a request for BDM assistance. Section 3.3.1.3 of the EA describes the methods that would be available for WS' personnel to use when addressing requests for BDM assistance. Non-lethal methods can capture, disperse, exclude, or otherwise make an area unattractive to birds that are causing damage; thereby, potentially reducing the presence of those birds at the site and potentially the immediate area around the site. The use of non-lethal methods that could cause a flight response in target birds or exclude target birds from a resource may disperse those birds to other areas. WS' personnel would not employ non-lethal methods over large geographical areas or apply those methods at such an intensity that essential resources (*e.g.*, food sources, habitat) would be unavailable for extended durations or over such a wide geographical scope that long-term adverse effects would occur to a species' population. Therefore, non-lethal methods generally have minimal effects on overall populations of bird species because non-lethal methods do not cause harm to individual birds within a species.

A common issue is whether damage management actions would adversely affect the populations of target bird species when employing lethal methods. Lethal methods can remove specific birds that WS-personnel have identified as causing damage or posing a threat to human safety. The number of birds removed from a population by WS using lethal methods would be dependent on the number of requests for assistance received. The number of birds removed would be dependent on the number of birds involved with the associated damage or threat, the efficacy of methods employed, and the number of individual birds the USFWS and/or the KDWPT authorizes WS to take. Based on those quantitative and qualitative parameters addressed in the EA, the anticipated number of birds that WS' employees could lethally take annually to address requests for BDM assistance under Alternative 1 would be of low magnitude when compared to population trend data, population estimates, and/or harvest data.

The lack of WS' direct involvement does not preclude the lethal removal of birds by those persons experiencing damage or seeking assistance from other entities. If the WS program only provided nonlethal assistance under Alternative 2 or provided only technical assistance under Alternative 3, those people experiencing damage or threats could remove birds themselves or seek assistance with removal from other entities under any of the alternatives when the USFWS and/or the KDWPT authorizes the removal, when authorization is required. In some cases, a landowner or their designee can lethally remove individual birds of certain species at any time they cause damage without the need to have specific authorization from the USFWS (*e.g.*, depredation orders, control orders, unprotected species). Under Alternative 4, a resource owner could seek assistance from private businesses to remove birds causing damage or they could remove certain bird species (*e.g.*, waterfowl) during the regulated hunting seasons in the state. Therefore, WS' involvement in the lethal removal of those birds under Alternative 1 would not be additive to the number of birds that could be removed by other entities in the absence of WS' involvement. The number of birds lethally removed annually would likely be similar across the alternatives because the removal of birds could occur even if WS was not directly involved with providing assistance (Alternative 4) or only provided

technical assistance (Alternative 3). WS does not have the authority to regulate the number of birds lethally removed annually by other entities.

An indirect effect of using lethal methods when targeting waterfowl and other bird species that people can harvest in the state is the potential effect on the ability of people to harvest those species. The magnitude of lethal removal addressed under Alternative 1 of harvestable bird species (*e.g.*, waterfowl, Wild Turkeys, Mourning Doves) would be low when compared to the mortality of those bird species from all known sources. Based on the limited removal proposed by WS and the oversight by the USFWS and/or the KDWPT, annual take by WS would have no effect on the ability of those persons interested to harvest certain bird species during the regulated harvest season. Similarly, the WS program would have no impact on the ability to harvest those species during the annual hunting seasons under Alternative 2, 3 and 4 because the WS program would have limited or no involvement with BDM associated with those species. However, resource/property owners and other entities could take birds resulting in impacts similar to Alternative 1 if WS implemented Alternative 2, 3 or 4. The USFWS and/or the KDWPT could continue to regulate bird populations through adjustments in allowed take during the regulated harvest season and through permits or authorizations to manage bird damage or threats of bird damage.

Issue 2 - Effects of BDM on Nontarget Wildlife Species Populations, Including T&E Species

WS' personnel have experience with BDM and receive training in the employment of BDM methods. Under Alternative 1, 2 and 3, WS' employees would use the WS Decision Model to select the most appropriate methods to address damage caused by nontarget birds. To reduce the likelihood of dispersing, capturing, or removing nontarget animals, WS would employ selective methods for the target species, would employ the use of attractants that were as specific to target species as possible, and determine BDM methods to avoid exposure to nontarget animals. Section 3.5 in the EA discuss the operating policies that WS' personnel would follow to prevent and reduce any potential adverse effects on nontarget animals when personnel conduct activities under Alternative 1 and, when applicable, under Alternative 2 and 3. Despite the best efforts to minimize nontarget animal exposure to methods during BDM activities, the potential for WS' personnel to disperse, live-capture, or lethally take nontarget animals exists when applying both non-lethal and lethal BDM.

The WS program in Kansas did not lethally remove any nontarget animals during BDM activities from FY 2015 through FY 2018. WS-Kansas take of nontarget animals from BDM is expected to remain extremely low to non-existent. Although WS' employees could lethally take nontarget animals, removal of individuals from any species is not likely to increase substantially. WS-Kansas will continue to monitor activities, including any nontarget animal take, to ensure the annual removal of nontarget animals would not result in adverse effects to a species' population. WS-Kansas personnel have not captured or adversely affected any threatened or endangered species during BDM activities from FY15 through FY18.

The ability of people to effectively conduct BDM would be variable under Alternative 2, 3 and 4 because the skills and abilities of the person implementing BDM actions or the availability of other entities capable of providing assistance could determine the level of success in resolving damage or the threat of damage. If private citizens or other entities apply those BDM methods available as intended, risks to nontarget animals would be similar or potentially greater than Alternative 1. If private citizens or other entities apply methods available incorrectly or apply those methods without the proper knowledge of animal behavior, risks to nontarget animals would be higher under any of the alternatives. If frustration from the lack of all available assistance under Alternative 2, 3 and 4 caused those people experiencing bird damage to use methods that were not legally available for use, risks to nontarget animals would be higher under those alternatives.

Based on a review of the threatened and endangered species listed in the state during the development of the EA, WS determined that activities conducted pursuant to Alternative 1 would not likely adversely affect those species listed in the state by the USFWS nor their critical habitats. As part of the development of the EA, WS consulted with the USFWS pursuant to Section 7 of the Endangered Species Act. The USFWS concurred with WS' determination that activities conducted pursuant to Alternative 1 would not likely adversely affect those species currently listed in the state or their critical habitats (USFWS 2015). Based on the use pattern of the methods and the locations where WS could implement BDM activities, the implementation of Alternative 1 would have no effect on those threatened or endangered species in Kansas. WS would continue to consult with the USFWS to evaluate activities to resolve BDM issues to ensure the protection of threatened or endangered species and to comply with the Endangered Species Act. In addition, WS has determined that the proposed activities would not adversely affect those species currently listed by the state. KDWPT issues a Nuisance Animal Damage Permit each year to WS-Kansas, for certain bird species and WS will follow those permit stipulations.

Issue 3 - Effects of BDM on Public and Pet Health and Safety and the Environment

The threats to human and pet safety from BDM would be similar across the alternatives because many of the same methods would be available to the public or private entities. If WS implemented Alternative 2 or Alternative 3, the only methods that would not be available under either of those alternatives would be DRC-1339. If WS implemented Alternative 1, the avicide DRC-1339 would only be available to WS' personnel associated with blackbirds, crows, pigeons, and starlings.

If people used methods incorrectly or without regard for safety, risks to human and pet safety would increase under any of the alternatives. The expertise of WS' employees in using the BDM methods would likely reduce threats to safety because WS' employees receive training and would be knowledgeable in the use of methods. In addition, WS personnel would use the WS Decision Model when assessing a request for assistance (see WS Directive 2.201). As part of the WS Decision Model, WS' personnel consider risks to human health and safety when evaluating the methods available for BDM assistance. WS' personnel must also adhere to WS' directives when conducting BDM (see WS Directive 1.101) and many of the directives address safety or relate to the safe use of methods (*e.g.*, see WS Directive 2.401, WS Directive 2.405, WS Directive 2.430, WS Directive 2.450, WS Directive 2.601, WS Directive 2.615, WS Directive 2.627, WS Directive 2.630, WS Directive 2.635). If WS implements Alternative 1, WS' personnel would also incorporate those operating policies discussed in Section 3.5 of the EA to minimize risks to human health and safety.

No adverse effects to human and pet health and safety occurred from the use of BDM methods by WS-Kansas from FY 2015 through FY 2018. Based on the use patterns of BDM methods available and the experience/training that WS' personnel receive, the implementation of the Alternative 1 would comply with Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) and Executive Order 13045 (Protection of Children From Environmental Health Risks and Safety Risks).

Issue 4 - Effects of BDM on the Aesthetic Values of Birds

Birds may provide aesthetic enjoyment to people, such as through observations, photographing, and knowing they exist as part of the natural environment. Methods available that WS or other entities could employ under each of the alternatives could result in the dispersal, exclusion, or removal or dispersal of individuals or small groups of birds to resolve BDM issues. Therefore, the use of methods often results in take of birds from the area where damage was occurring and dispersal or exclusion of birds from an area. Because methods available would be similar across the alternatives, the use of those methods would have similar potential impacts on the aesthetics of birds. However, even under Alternative 1, the dispersal and/or

lethal removal of birds would not reach a magnitude that would prevent the ability to view those species outside of the area where damage was occurring. The effects on the aesthetic values of birds would therefore be similar across the alternatives and would be minimal.

CUMULATIVE IMPACTS OF ALTERNATIVE 1:

No significant cumulative environmental impacts are expected from any of the four alternatives, including the proposed action/no action alternative (Alternative 1). Under Alternative 1, the lethal take of target bird species by WS-Kansas to alleviate damage or threats of damage would be of a low magnitude at the levels addressed in the EA when compared to the total known take of those species and the populations of those species (see Section 4.1 and Appendix B). With management authority over bird populations, the USFWS and/or KDWPT could adjust take levels, including the take by WS, to achieve population objectives for bird species. The unintentional take of nontarget animals would likely be limited and would not reach a magnitude where adverse effects would occur to a species' population. From FY 2015 through FY 2018, no take of nontargets occurred by WS-Kansas during BDM activities. Based on the methods available to resolve BDM issues and the analysis in the EA, WS-Kansas does not anticipate the number of nontarget animals lethally removed to reach a magnitude where declines in those species' populations would occur.

WS-Kansas has received no reports or documented any effects to human safety from BDM activities conducted from FY 2015 through FY 2018 nor anticipates any to occur. Because those people seeking assistance from WS could take birds from areas where damage was occurring themselves in the absence of any involvement by WS, WS-Kansas involvement would have no effect on the aesthetic value of birds in the area where damage was occurring if those people would have removed those birds themselves. Therefore, WS does not expect to have any cumulative adverse effects on the aesthetic value of birds if the dispersal or removal occurs at the request of a property owner and/or manager. WS would employ methods as humanely as possible by applying operating policies and using approved methods. The analysis in the EA indicates that the proposed action (Alternative 1) which is an integrated approach to BDM would not result in significant cumulative adverse effects on the quality of the human environment.

CUMULATIVE IMPACTS OF ALTERNATIVE 2:

Under alternative 2, WS-Kansas would not take any target or nontarget species because lethal BDM methods would not be used. In those instances where non-lethal methods could effectively resolve damage caused by birds, those methods will be used, or recommended. Exclusionary devices can be effective in preventing access to resources in certain circumstances. The primary exclusionary methods are netting and overhead lines. Exclusion is most effective when applied to small areas to protect high value resources. However, exclusionary methods are neither feasible nor effective for protecting human safety, agricultural resources, or native wildlife species from birds across large areas. Limiting the availability of methods under this alternative to only non-lethal methods could be inappropriate when attempting to address threats to human safety expeditiously, primarily at airports. The primary difference between BDM under the current program (alternative 1) and that conducted by private entities would be the use of chemicals and a reduced take of migratory birds requiring a depredation permit from USFWS as discussed in section 4.1.1.2 of the EA.

CUMULATIVE IMPACTS OF ALTERNATIVE 3:

Under this alternative, WS-Kansas would have no impact on any bird species population in Kansas because the program would not conduct any operational BDM activities. WS-Kansas would offer advice on the BDM techniques that to resolve different damage problems. This alternative would place the immediate burden of using methods to alleviate damage on the resource owner, other governmental agencies, and/or

private businesses. Those entities could take action using those methods legally available to alleviate or prevent bird damage as permitted by federal, state, and local laws and regulations or those persons could take no action. Since most of WS-Kansas BDM occurs at airports, it would not make sense to consider technical assistance only when addressing human health and safety threats on airports. Additionally, WS-Kansas has access to DRC-1339, which is unavailable for public use and is an extremely effective tool for managing starlings and pigeons at livestock feeding operations and public utilities. The use of illegal chemicals and other methods under this alternative as described in Sections 2.1.3 of the EA could lead to real but unknown impacts on target bird populations. Impacts and hypothetical risks of illegal chemical toxicant use under this alternative would probably be more than under Alternative 2 and less than under Alternative 4.

CUMULATIVE IMPACTS OF ALTERNATIVE 4:

This alternative would preclude any BDM by WS-Kansas to reduce threats to human health and safety, and alleviate damage to agricultural resources, property, and natural resources. WS-Kansas would not conduct BDM in the state, so no direct cumulative impacts would occur by WS-Kansas. However, other private entities would likely conduct similar BDM activities, which means the impacts would then be similar to the current program alternative or even potentially increased negative impacts.

DECISION AND RATIONALE

Section 1.5 of the EA identifies several decisions based on the scope of the EA. Based on the analysis included in this EA, I have carefully reviewed the final EA prepared to meet the need for action. I find the proposed action/no action alternative (Alternative 1) to be environmentally acceptable, addressing the issues and needs while balancing the environmental concerns of management agencies, landowners, advocacy groups, and the public. The analyses in the final EA adequately address the identified issues, which reasonably confirm that no significant impact, individually or cumulatively, to bird populations or the quality of the human environment are likely to occur from Alternative 1, nor does Alternative 1 constitute a major federal action. Therefore, the analyses in the final EA does not warrant the completion of an Environmental Impact Statement.

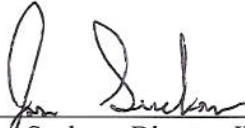
Based on the analyses in the final EA, selecting Alternative 1 would best address the issues identified in Chapter 2 of the final EA and applying the associated operating policies discussed in Chapter 3 of the final EA. Alternative 1 successfully addresses BDM using a combination of the most effective methods and does not adversely impact the environment, property, human health and safety, target species, and/or nontarget species, including threatened or endangered species. Alternative 1 offers the greatest chance of maximizing effectiveness and benefits to resource owners and managers and implementation of Alternative 1 presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety. Implementing Alternative 1 would offer a balanced approach to the issues of humaneness, animal welfare, and aesthetics when considering all facets of those issues. Changes that broaden the scope of BDM activities in the state, changes that affect the natural or human environment, or changes from the issuance of new environmental regulations would trigger further analysis. Therefore, it is my decision to implement Alternative 1 as described in the final EA.

Finding of No Significant Impact

Based on the analyses provided in the final EA, there are no indications that Alternative 1 would have a significant impact, individually or cumulatively, on the quality of the human environment. I agree with this conclusion and therefore, find that an Environmental Impact Statement should not be prepared. I base this determination on the following factors:

1. WS-Kansas BDM activities in the state under Alternative 1 would not be regional or national in scope.
2. Based on the analyses in the final EA, the methods available under Alternative 1 would not adversely affect human safety based on their use patterns.
3. Alternative 1 would not significantly affect unique characteristics, such as parklands, prime farmlands, wetlands, wild and scenic areas, or ecologically critical areas. Operating policies discussed in Section 3.5 of the final EA and WS' adherence to applicable laws and regulations would further ensure that activities conducted under Alternative 1 would not harm the environment.
4. The effects on the quality of the human environment under Alternative 1 are not highly controversial. Although there is some opposition to managing bird damage and the methods, this action is not highly controversial in terms of size, nature, or effect.
5. Based on the analysis documented in the final EA and the accompanying administrative file, the effects of Alternative 1 on the human environment would not be significant. The effects associated with implementing Alternative 1 are not highly uncertain and do not involve unique or unknown risks.
6. Alternative 1 would not establish a precedent for any future action with significant effects.
7. The final EA did not identify significant cumulative effects associated with implementing Alternative 1. The final EA analyzed cumulative effects and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the State of Kansas.
8. Alternative 1 would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would Alternative 1 likely cause any loss or destruction of significant scientific, cultural, or historical resources.
9. WS has consulted with the USFWS pursuant to Section 7 of the Endangered Species Act and the USFWS has concurred with WS' effects determination. In addition, WS has determined that the proposed activities would not adversely affect those species currently listed by the state. KDWPT has concurred with WS' determination for state listed species and WS will follow those recommendations provided during the consultation regarding listed species.
10. WS' activities conducted under Alternative 1 would comply with all applicable federal, state, and local laws.

I based this decision on several considerations. This decision takes into account social/political and economic concerns, public health and safety, and the best available science. The foremost considerations are that 1) WS would only conduct activities at the request of landowners/managers, 2) management actions would be consistent with applicable laws, regulations, policies and orders, and 3) the analysis did not identify significant effects to the human environment. By selecting the proposed action (alternative 1), WS-Kansas will continue to provide an integrated approach to BDM to protect agriculture, property, and human health and safety in the state of Kansas.



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12/12/19

Date

LITERATURE CITED

USDA. 2019. Environmental Assessment of Bird Damage in Kansas. USDA-APHIS-Wildlife Services, Manhattan, Kansas

