

# **Decision and Finding of No Significant Impact for the Environmental Assessment: Bird Damage Management in Colorado**

## **United States Department of Agriculture, Wildlife Services**

**January 16, 2020**

### **1. Introduction**

In Colorado, wildlife are considered an integral part of the social fabric that comprises the human environment. Abundant wildlife populations interact with close to 5.7 million people in the state each day. These animals elicit a multitude of human emotion(s) including: joy, happiness, a greater sense of personal well-being, and at times can cause frustration, anxiety, and anger. On rare occasions, people are injured or killed by animals as a result of negative human-wildlife conflicts. The United States Department of Agriculture (USDA), Wildlife Services (WS) responds to requests for assistance from individuals, organizations, and agencies experiencing damage associated with birds in Colorado. WS's State Office in Colorado (WS-Colorado) conducts Bird Damage Management (BDM) activities at the request of, and in cooperation with, other federal, state, tribal, and local agencies, as well as private organizations and individuals.

In January 2018, WS-Colorado decided to prepare an Environmental Assessment (EA) evaluating the potential environmental impacts of alternatives for WS-Colorado's involvement in BDM in the state. WS-Colorado prepared the new EA in cooperation with Colorado Parks and Wildlife (CPW), the Colorado Department of Agriculture (CDA), the Colorado Department of Public Health and Environment (CDPHE), the Colorado Department of Transportation (CDOT), the U.S. Fish and Wildlife Service (USFWS), the USDA Forest Service (USFS), the Bureau of Land Management (BLM), the U.S. Department of Defense (DoD), and the Federal Aviation Administration (FAA). This Decision document provides notification of WS-Colorado's choice of an alternative and determination regarding the environmental impacts of the chosen alternative.

### **2. Purpose and Need**

The purpose of the proposed action is to reduce human-wildlife conflicts in Colorado by managing damage and threats of damage to human health and safety, property, agricultural resources, and natural resources associated with the bird species listed in **Chapter 1** of the EA. As stated in **Chapter 1**, 503 species of birds have been identified by Colorado Field Ornithologists within the state, with sightings occurring regularly during migration or as accidental occurrences (**Table 1.1, 1.2, 1.3, 1.4**). Of these species, 199 have the potential to be involved in WS-Colorado BDM (**Table 1.1**). Most of these species, however, will be targeted only if they occur within airport environments and present a risk of an aircraft bird strike, which threatens human health and safety. Outside the airport environment, WS-Colorado is likely to receive requests for BDM assistance for 98 species of birds (**Chapter 1, Table 1.1**). WS-Colorado may receive requests to provide BDM assistance for any of the species listed in the EA.



The EA provides details on the need for action to resolve BDM conflicts in **Section 1.7**. The need for BDM action(s) in Colorado arise from requests for assistance related to five major resources, including protection of: human health and safety, agriculture, property, natural resources (including activities on behalf of threatened and endangered species), and protection from disease threats. WS-Colorado provides BDM assistance statewide and is available upon request by resource owners and managers. WS-Colorado identified the bird species most likely to pose a threat to or damage pertinent resources in the EA (**Table 1.1, 1.2, 1.3, and 1.4**). For the Federal Fiscal Year (FY) 2013 to 2017 WS-Colorado provided technical and operational BDM assistance involving 25,756 requests: 20,481 (80%) requests for aviation safety; 2,757 (11%) for disease surveillance; 1,750 (7%) for property damage; 397 (2%) for conflicts involving feedlots, dairies, or Concentrated Animal Feeding Operations (CAFO); 236 (1%) for human health and safety; 86 (<1%) for aquaculture; 25 (<1%) to protect crops or pasture; 13 (<1%) to protect farm-raised game birds or poultry; and 11 (<1%) to protect threatened or endangered species or bird species of management concern.

### **3. Public Involvement**

In September 2019, WS-Colorado issued an invitation soliciting public comments on alternatives and issues addressed in the Pre-decisional Draft of the 2019 BDM in Colorado EA. Through the public involvement process, WS-Colorado communicated to the public and interested parties the analyses of potential environmental impacts on the quality of the human environment.

WS-Colorado posted notices of the invitation for public comment in the APHIS Stakeholder Registry, the WS NEPA web page, and the federal e-rulemaking portal (Regulations.gov). WS-Colorado published a Legal Notice in *The Denver Post* on the consecutive days of September 18<sup>th</sup> -20<sup>th</sup>, 2019. The 39-day comment period closed on October 25, 2019. WS-Colorado received 554 comment letters that contained a combined total of approximately 1,000 individual comments. We have summarized the comments into 19 individual comment categories and provided responses to them in **Chapter 6** of the final EA.

WS-Colorado will publish this Decision and Finding of No Significant Impact (FONSI), and the Final EA using the same outlets it used for the Pre-decisional EA.

### **4. Related Analyses**

Prior to the completion of the Final 2020 EA on BDM in Colorado and this Decision and FONSI, WS-Colorado conducted BDM actions under the 2013 EA for BDM in Colorado (WS 2013), and the 2013 FONSI and Decision for BDM in Colorado. This Decision and FONSI, and the final 2020 EA on BDM in Colorado, will replace the 2013 BDM EA and FONSI/Decision.

### **5. Affected Environment**

Most species of birds addressed in the EA can be found throughout the year across Colorado, where suitable habitat exists for foraging, loafing, roosting, and breeding. Many of these species utilize a variety of habitats, and requests for BDM assistance could occur throughout Colorado. Areas with the highest probability of experiencing bird damage include those in and around commercial, industrial, public, and private buildings; facilities and properties where birds may be utilizing suitable habitat; at airports and surrounding properties, where birds pose a threat to human health and aviation safety; in urban



environments, where quality of life issues must be balanced among other competing interests; and in rural areas, to aid recovery of threatened or endangered species. The bird species analyzed in this EA and FONSI could cause, or threaten to cause, damage statewide, wherever those species occur. WS-Colorado could conduct BDM activities on federal, state, tribal, municipal, and private properties in Colorado. WS-Colorado would only conduct BDM when requested by a landowner, affected resource owner or manager, land manager, or tribe, and only on properties where WS-Colorado has an executed Work Initiation Document or other comparable document. WS-Colorado will coordinate actions on public lands with the appropriate land management agency, and all activities will be consistent with applicable land and resource management plans. The types of permissible activities that may be conducted on public lands varies among sites, as does the potential for conflicts with wildlife.

The State of Colorado encompasses about 104,000 mi<sup>2</sup> (66,635,566 acres) in 64 Counties (**Figure 1.2**). During the 5-year period, FY2013-2017, WS-Colorado conducted BDM on approximately 888,815 acres of land statewide, comprised of 554,428 acres of county or city land (62%); 281,551 acres of private land (32%); 27,395 acres of Department of Defense lands (3%); 25,000 acres of federal public lands (3%); 251 acres of other public lands (<1%); and 192 acres of state land (<1%).

The EA provides a detailed discussion of the Affected Environment in **Chapters 1, 2, and 3**. The EA discusses methods which WS-Colorado may use for BDM in **Chapter 2 Sections 2.8 and 2.9**.

## 6. Issues

WS-Colorado identified the following issues during the development of the EA and used them to drive the environmental analysis and compare the potential impacts of the alternatives.

- Impacts of Bird Damage Management Activities on Target Bird Populations – What might be the direct, indirect, and cumulative impacts of removing individuals or groups of individual birds on the viability of target native bird populations?
- Impacts of Bird Damage Management on Non-target Bird Species, Including T & E Species – What might be the direct, indirect, and cumulative impacts on non-target bird populations, including Threatened and Endangered (T&E), and sensitive bird species (state Species of Concern)?
- Impacts of Bird Damage Management on Public and Pet Safety and the Environment– How would the alternatives potentially impact public and pet safety and the environment? What are the potential impacts of the methods used? What are the potential impacts of consuming donated Canada goose or other wild bird meat?
- Impacts of Bird Damage Management on Sociocultural Issues– How would the alternatives potentially impact aesthetics, hunting, bird watching, recreation, and subsistence living? What are the ethical perceptions associated with BDM, and how are these influenced by an individual's perspective, philosophy, and experience? What are the varying perspectives on this issue relative to the proposed management actions for each alternative?
- Impacts of Bird Damage Management on Humaneness and Animal Welfare Concerns– How are humaneness and animal welfare concerns addressed as they relate to the capture and lethal removal of wildlife? What are the varying perspectives on this issue relative to the proposed management actions for each alternative?



The EA considered twelve supplementary issues but did not analyze them in further detail (see **Section 2.6** for further discussion). WS-Colorado's responses to additional issues raised during the comment period for the EA are addressed in the Responses to Comments in **Chapter 6** of the EA, and we incorporated them into the analysis in **Chapter 3** of the EA as appropriate. We included additional information in **Chapters 1** and **2** to provide clarification in response to some comments. In **Chapter 2**, in response to comments about Denver Parks, we listed an additional nonlethal method to haze Canada geese (remote systems such as boats and hovercraft).

## **7. Alternatives Analyzed in Detail**

**Chapter 3** of the Final EA considered and analyzed four alternatives to address the issues identified. We considered seven additional alternatives but did not analyze them in detail in the EA (**Section 2.6**). The following is a summary of the four BDM alternatives that the EA considered in detail.

- **Alternative 1: Continue the Current Integrated Approach to Managing Bird Damage (Proposed Action/No Action).**

The Proposed Action/No Action alternative, which is also the baseline for the analysis in this EA, would continue the current implementation of an integrated BDM approach utilizing all applicable and appropriate techniques and methods, as deemed appropriate by the WS Decision Model (Slate et al. 1992, WS Directive 2.201), to reduce damage and threats of damage associated with birds in Colorado. This is the Proposed Action as described in **Chapter 2** and is the No Action Alternative as defined by the Council on Environmental Quality (40 CFR 1500-1508) for analysis of ongoing programs or activities.

Under this alternative, WS-Colorado would continue to respond to requests for technical assistance or operational damage management assistance, as appropriate and when funding is available. WS-Colorado would implement an integrated BDM strategy. When practical and effective, WS-Colorado would use nonlethal methods (WS Directive 2.101). Nonlethal methods may include habitat/behavior modification, lure crops, visual deterrents, inactive nest destruction, live trapping, translocation, frightening devices, exclusionary devices, and chemical repellents. Lethal methods used by WS-Colorado may include live-capture followed by euthanasia, egg addling/removal, the avicide DRC-1339, and/or take by use of firearms. The euthanasia of live-captured birds, when conducted, would occur in accordance with WS Directive 2.505 and recommendations from the American Veterinary Medical Association (AVMA) (AVMA 2013). WS-Colorado may donate birds taken as part of operational projects for human consumption or for wild animal consumption at zoos or wildlife rehabilitation centers (**Section 3.3.1**).

**Alternative 1** is the baseline against which all other alternatives are compared, as explained in **Section 3.0** in the EA. The EA provides a more detailed discussion about **Alternative 1** in **Section 3.3.1**.

- **Alternative 2: Nonlethal Bird Damage Management by WS-Colorado Only.**

Under this alternative, WS-Colorado would only provide nonlethal technical and operational BDM assistance. Technical assistance would include information, demonstrations,



recommendations, and appropriate methods and techniques. The implementation of such recommendations, methods, and techniques would be the responsibility of the requestor, with additional nonlethal operational assistance provided by WS-Colorado if requested. In some instances, and if funding were available, WS-Colorado may be able to loan nonlethal supplies or material to requestors. WS-Colorado biologists would stop providing assistance to requestors seeking to obtain a Migratory Bird Depredation Permit (MBDP) Form 37 from USFWS for lethal take. Currently, the majority of MBDP Form 37s are for lethal take. Under **Alternative 2**, WS-Colorado would provide a MBDP Form 37 recommending nonlethal take only. The USFWS will need to process MBDP lethal requests without WS-Colorado involvement. As with the Proposed Action/No Action Alternative, a key component of the assistance provided by WS-Colorado will be to educate the requestor about wildlife, wildlife damage, and wildlife damage management. Under **Alternative 2**, WS-Colorado would not use restricted use toxicants (e.g. DRC-1339). This alternative would also restrict WS-Colorado's ability to reduce direct hazards to aircraft as a result of bird-aircraft collisions.

The EA provides a more detailed discussion about **Alternative 2** in **Section 3.3.2**.

- **Alternative 3: WS-Colorado Provides Technical Assistance (Lethal and Nonlethal) Only for Bird Damage Management.**

Under this alternative, WS-Colorado would respond to requests for assistance by: 1) taking no action, if warranted; or 2) providing only technical assistance; or 3) referring requestors to other agencies or Nuisance Wildlife Control Operators (NWCs). Technical assistance would include providing information, demonstrations, recommendations, and instruction in the appropriate use of BDM methods and techniques (both lethal and nonlethal) to cooperators. No equipment would be loaned or provided by WS-Colorado. WS-Colorado would assist individuals with USFWS Migratory Bird Depredation Permit applications by providing a Form 37 (Migratory Bird Damage Project Report) for both lethal and non-lethal requests. See **Section 2.3.2** for additional details.

The implementation of such recommendations, methods, and techniques would be the sole responsibility of the requestor; WS-Colorado would provide no operational assistance. This alternative would effectively preclude the use of certain methods, including live trapping and translocation by WS-Colorado personnel, and DRC-1339. Live trapping and translocation would be precluded because WS personnel would only be providing technical assistance and not performing any operational work. DRC-1339 is a restricted use pesticide for use only by trained USDA personnel. USDA personnel would also not be applying DRC-1339 because they would not be performing operational work under alternative 3.

The EA provides a more detailed discussion about **Alternative 3** in **Section 3.3.3**.

- **Alternative 4: No Federal WS-Colorado Bird Damage Management.**

This alternative would exclude any involvement by WS-Colorado to reduce threats of bird damage to human health and safety, and alleviate damage to agricultural resources, property, and natural resources. WS-Colorado would not be involved with any aspect of BDM within Colorado, including technical assistance or operational assistance. All requests for assistance to alleviate damage associated with birds received by WS-Colorado would be referred to the



USFWS, CPW, CDA, or private entities. The requestors could then contact other entities for additional information and assistance, and could take actions to alleviate the damage or conduct such activities on their own. This alternative would not prevent other federal, state, and/or local agencies or private entities from conducting BDM activities to alleviate damage and threats to resources in Colorado.

The EA provides a detailed discussion about **Alternative 4** in **Section 3.3.4**.

## **8. Monitoring**

Currently, WS-Colorado, in coordination with USFWS, when appropriate, monitor the results and impacts of its BDM activities. The impacts discussed in this EA are monitored and evaluated in two ways:

1.) WS-Colorado determines if any additional information that arises subsequent to the NEPA decision from this EA would trigger the need for additional NEPA analysis. WS-Colorado reviews implementation results and the related NEPA documents, as needed, to ensure that the need for action, issues, identified alternatives, regulatory framework, and environmental consequences are consistent with those identified in this EA.

2.) WS-Colorado monitors impacts on target and non-target bird species populations through its Management Information System (MIS) database. WS-Colorado uses MIS data to assess the localized and cumulative impacts of WS-Colorado's activities on specific bird species and non-target wildlife populations. WS-Colorado provides detailed information on animal removal, as appropriate, to USFWS to assist with managing species and resources under its jurisdiction.

The EA provides a more detailed discussion of monitoring in **Section(s) 2.10, 2.7**. WS-Colorado will continue to monitor its BDM activities in the context of this EA, and evaluate whether there is new information that warrants supplementing or replacing the EA.

## **9. New Information**

New information, described below, became available after the public comment period closed on the Pre-decisional Draft EA. We reviewed the new information and incorporated it into the final EA, as appropriate. The new information is consistent with the conclusions and material presented in the Pre-decisional Draft EA, and it did not change the analysis.

- We added information to **Section 2.9.1 Nonlethal Methods that May Be Used\ Remote Controlled Systems** (i.e. boats, hovercraft) being used as a nonlethal method to haze Canada geese. We added this information to **Section 2.9.1 Nonlethal Method that May Be Used** to clarify that remote controlled boats are a type of frightening device, similar to all of the other visual stimuli examples given. WS-Colorado is aware that remote controlled boats/systems (e.g. Goosinator) are available for nonlethal harassment of Canada Geese in Denver Parks.
- We added information to **Section 3.3.1 Alternative 1: Continuing the Current Integrated Approach to BDM (Proposed Action/No Action)\Issue C: Impacts of Bird Damage Management Methods on Public and Pet Safety and the**



**Environment.\Contaminates\** on the Environmental Protection Agency Vasquez Boulevard and Interstate 70 Superfund site. Within the Vasquez Boulevard & Interstate 70 (VB/I-70) Superfund site are historical commercial/industrial smelting operations locations for Rocky Mountain West, Omaha & Grant, and Argo. Beginning in the 1870s, these sites processed gold, copper, silver, lead, and zinc. As a result, heavy metals can be found in area soils that, in some cases, can pose a health risk to people living in the vicinity. Groundwater may also be impacted at these locations. We added this information to the EA in response to public comments regarding Denver Canada geese consuming lead and other toxic substances, making the meat unsuitable for human consumption. This information did not change our analysis, because we will not remove, collect, or donate any Canada geese from any of these locations and do not expect geese from these sites to move into locations where geese would be donated. We also state in **Section 2.14.2.3 Issue C – Impacts on Public Health and Safety** “*WS-Colorado personnel do not collect sick or dying animals (due to natural causes unless they are a part of a research project) and make note of any abnormal behavior in these populations. In areas where animals are exhibiting signs of anticholinesterase toxicity, these animals will be lethally removed according to AVMA guidelines and buried or incinerated, if necessary, during roundup activities. In some cases, other authorities (i.e. agency, organization, landowner, or manager) may be advised of the situation and the fate of these birds would be determined by said authorities’ active protocols. WS-Colorado would bury or incinerate Canada geese living in areas potentially polluted by mining operations, smelting, or where glycol ponding occurs (if part of roundup operations).*” See **Section 3.3.1** for a map of the area and more detailed discussion.

- We added information to **Section 3.3.2 Alternative 2: Nonlethal Bird Damage Management by WS-Colorado Only.\ Issue C: Impacts of Bird Damage Management Methods on Public and Pet Safety and the Environment.\ Sole Use of Hazing Techniques – Case Study**. WS-Colorado recognizes that integrative, innovative, and acceptable management strategies are needed to effectively reduce human-wildlife conflicts. Usually, this involves implementing an integrated damage management strategy involving both lethal and nonlethal techniques. During the public comment period for this EA, commenters suggested the use of nonlethal methods **only** to deter Canada geese. This topic was discussed in **Section 2.5.5 Only Live Trapping and Translocation Would Be Employed Rather Than Lethal Take**. However, we included an additional section that addressed the issues as presented by Holevinski et al. (2007).
- Rosenberg et al. (2019) released a new publication on September 19, 2019, shortly after WS-Colorado opened the public comment period on the Pre-decisional Draft BDM EA. The study found that much of the North American avifauna (i.e., birds of particular region or habitat) had declined by 29% from bird population abundance data collected in the 1970s. The authors further cite that “*this loss of bird abundance signals an urgent need to address threats to avert future avifaunal collapse and associated loss of ecosystem integrity, function, and services.*” This information was added to **Section 3.1.7 Potential Biological Removal for Local Populations** under the *Natural Factors that Limit Bird Populations*. This information does not affect our analysis because bird species are declining and the analyzed activities will not cause



any one species to become threatened, endangered, or go extinct as discussed in **Section 3.1.7**.

- Commenters requested additional information regarding Canada goose roundups in Denver Parks. From June through July of 2019, per an agreement with Denver Parks and Recreation, WS-Colorado conducted Canada goose roundups at four parks in Denver, Colorado. WS-Colorado used live “drive-traps” to capture Canada geese during the molt (i.e., when geese are flightless). WS-Colorado removed a total of 1,662 geese from four Denver Parks (Washington 576, City 703, Sloan’s 235, and Garfield 148). As discussed in **Chapter 2, Protective Measures** of the EA, some geese were left in Denver Parks following Canada goose roundups to ensure continued public enjoyment of wildlife within Denver parks. This information was also added to the EA in response to public comments (**Section 3.3.1**). This information is consistent with the conclusions and material presented in the Pre-decisional Draft EA and did not change the analysis. The lethal removal of Canada geese by WS-Colorado in 2019 is well within the conservative thresholds discussed in the Pre-decisional Draft EA. While we did not include this data because the project occurred outside of the years covered in this analysis, we are providing it now to respond to comments.

## **10. Clarifications to the Draft EA**

WS-Colorado also made some clarifications in the Final EA in response to public comments and review of available information. These clarifications are consistent with the analyses, conclusions, and material presented in the Pre-decisional Draft EA. The clarifications more fully describe the potential effects of WS-Colorado’s BDM activities under the alternatives. Key items are:

- We added language in **Table 1.1** to clarify that not all bird species will be involved in BDM in Colorado. Superscript reference numbers above species indicate if the species has the potential to be involved in a request for assistance other than BDM at airports.
- We corrected language in the document when grammatical errors were pointed out by commenters or were discovered during editing.

## **11. Use of the Best Available Science**

WS-Colorado relies on the best available science and peer-reviewed publications for its conclusions. Our analysis evaluates bird populations using trend data derived from numerous sources, including the Breeding Bird Survey (BBS), the Christmas Bird Count (CBC), Partners in Flight Landbird Population Estimates Database version 2.0, the Bird Conservancy of the Rockies Rocky Mountain Avian Data Center database, the Colorado Breeding Bird Atlas Project, published literature, and harvest data (when available). Notably, as seen in all the data presented in the EA, bird estimates differ depending upon the methodologies used to collect the data, how the data is statistically analyzed, and the standard protocols given to observers. WS-Colorado used the most conservative bird population estimate (Rocky Mountain Avian Data Center) to perform population analysis impacts on each bird species. Using the most conservative bird population estimates ensures that WS-Colorado’s BDM activities will not impact the viability of any bird



species population listed in the EA. **Section 3.1** of the EA provides a detailed description of the data used, including identifying the limitations with each dataset and the data quality.

## 12. Review of Alternatives

The EA provides a detailed analysis of the issues within each alternative as it relates to WS-Colorado's BDM activities. This review of the alternatives summarizes numerous analyses within each alternative. The analysis is further streamlined for clarity and ease of comparison in **Tables 6.1** and **3.87** in the EA. To see more details on comparison of alternatives go to **Section(s) 3.4** and **3.5** in the EA.

- WS-Colorado chose **Alternative 1** because it is the best fit for the purpose and need of BDM within Colorado and meets all the goals and objectives of WS and WS-Colorado. **Alternative 1** provides the most efficient and reliable framework for accomplishing these goals and objectives. **Alternative 1**, by providing access to the full range of legally available BDM methods in conjunction with application of the WS Decision Model, best enables development of effective site-specific BDM strategies that accommodate resource owner/manager objectives and minimize the risk of adverse impacts on the human environment. WS-Colorado's analysis of impacts on bird species is predicated on conservative estimates of bird population size, which would overstate the actual impact. Although lethal take is a part of this alternative, lethal take on its own is not a substantial impact. **Alternative 1** is also the best option for receiving tribal input within the state and coordinating with other land management agencies.
- **Alternatives 2, 3, and 4**, which restrict actions to nonlethal take or no-action, do not fit the purpose and need of BDM in Colorado because WS-Colorado would be limited or unable to respond to requests for assistance. Some requests would need to be referred to other agencies or individuals or NWCOs due to WS-Colorado's inability to use certain methods, such as lethal methods, under these alternatives. Assistance with bird conflicts impacting human health and safety would not be provided to the full extent as under **Alternative 1**. Airport programs using WS-Colorado would likely be forced to conduct lethal damage management on their own or hire additional contractors. Livestock, agricultural, and other resource managers would need to contract with other agencies or individuals to perform BDM work. Under these alternatives, without the assistance of WS-Colorado, the use of nonlethal or lethal methods by private individuals would likely result in unproductive, improper, or detrimental results due to their lack of experience and training.
- Although WS-Colorado's cumulative impacts may be slightly less in **Alternatives 2, 3, and 4**, the difference in cumulative impacts among the alternatives is not substantial. The resulting increase in lethal take by private individuals would likely be higher than under **Alternative 1** because WS-Colorado would not provide any, or only provide limited, professional support or assistance.
- There are differences among the alternatives regarding the amount of direct, indirect, and cumulative impacts to target bird species and non-target take, but those differences would not result in significant impacts to statewide population numbers of any of the species analyzed in the EA.
- The impacts to threatened and endangered species would be exceptionally limited under **Alternative 1** and even more so under **Alternatives 2, 3, and 4**. However, **Alternative 1** would offer the greatest opportunity for public viewing and enjoyment of T&E species that may benefit from WS-Colorado's BDM activities because the lethal removal of overabundant



or invasive species would positively impact the availability of suitable habitat for T&E species and biodiversity.

- The impacts of BDM activities on humaneness and animal welfare concerns is subjective to the observer and that observer's knowledge and experience with the methods used. Under **Alternatives 2, 3, and 4**, negative impacts on humaneness and animal welfare would still occur in the private sector, due to a lack of oversight and governmental enforcement. These negative impacts under **Alternatives 2, 3, and 4** would likely be greater than under **Alternative 1**, because WS-Colorado adheres to AVMA euthanasia standards and would be limited or unable to provide professional operational or technical assistance. Other non-WS entities or private individuals are rarely subject to enforced reporting of the method of take or number of birds taken under depredation permits or by other private activities.

The EA discusses these contingencies in more detail in **Sections 3.3, 3.4., and 3.5.**

**Table 6.1.** Evaluation of whether activities would be performed for each of the Alternatives. Y= Yes, N = No.

Activity	Alt. 1	Alt. 2	Alt. 3	Alt. 4
<b>A. Nonlethal BDM Technical Assistance.</b>	Y	Y	Y	N
<b>B. Lethal BDM Technical Assistance.</b>	Y	N	Y	N
<b>C. Form 37 Recommendations for Federal Permit (majority lethal take).</b>	Y	N	Y	N
<b>D. Operational BDM (Nonlethal).</b>	Y	Y	N	N
<b>E. Lethal Operational BDM.</b>	Y	N	N	N

### 13. Evaluation of Alternatives to Meet Goals and Objectives of WS and WS-Colorado.

The goals and objectives of WS and WS-Colorado are to provide services to reduce threats to human health and safety, to reduce damage to resources and property, and to protect wildlife, when requested, within the constraints of available funding and workforce. We have discussed these goals and objectives throughout the final EA, and we summarize the discussion in **Chapter 3, Tables 3.88, and 3.89**. These tables depict how each Alternative meets each goal and/or objective. Of the four Alternatives evaluated, **Alternative 1** ("Proposed Action/No Action Alternative") best meets the goals and objectives while minimizing negative environmental impacts.

Under the Proposed Action/No Action Alternative (**Alternative 1**), WS-Colorado would respond to requests for assistance by: 1) taking no action, if warranted, 2) providing technical assistance to property owners or managers on actions they could take to reduce damage or threats of damage, or 3) provide technical assistance and operational assistance to a property owner or



manager experiencing damage or threats of damage. Under this alternative, WS-Colorado would likely be the primary agency conducting operational assistance. However, other federal, state, and private entities could also conduct BDM activities.

WS-Colorado does not normally conduct operational BDM activities concurrently with other public (federal or state) entities in the same area, but these activities may occur at adjacent sites within the same period. However, WS-Colorado may conduct BDM activities concurrently in the same area that private entities, such as commercial pest control companies, are conducting similar activities. Potential cumulative effects could occur because of A) the aggregate effects of WS-Colorado's activities along with the activities of other entities and individuals either over a short or extended period of time; or B) because of the aggregate effects of WS-Colorado's activities alone over a short or extended period. The take of birds during hunting season, birds taken under depredation orders and depredation permits, and the actions of other agencies including USFWS, CPW, and WS-Colorado, are regularly coordinated and discussed to ensure that BDM activities are within the scope of analysis of the final EA.

- **Alternative 1: Continue the Current Integrated Approach to Managing Bird Damage (Proposed Action/No Action).**

**Alternative 1** meets all of the agency's goals and objectives. We cannot state with certainty that the goals will be met, because that depends on WS-Colorado's BDM activities at a future time and place. This Alternative, however, provides the most efficient and reliable framework for accomplishing these goals and objectives. In the past, WS-Colorado has accomplished these goals and objectives under this Alternative.

- **Alternative 2: Nonlethal Bird Damage Management by WS-Colorado Only.**

Under **Alternative 2**, WS-Colorado would be able to meet some of the goals and objectives, with limitations. Although WS-Colorado would be able to respond to requests for assistance associated with bird damage, the bird damage problem may not be resolved as efficiently as under **Alternative 1**. Because WS-Colorado would only be providing nonlethal BDM assistance, cooperators that previously provided funding for operational work would likely no longer use these services. The lack of funding would lead to a decreased amount of operational and support staff that would be able to respond to requests for assistance. A reduced workforce would likely not be able to conduct as many site visits as under **Alternative 1**.

Under **Alternative 2**, WS-Colorado would refer requests for help involving lethal BDM to other entities and/or individuals. This would include requests from the public for Form 37s requesting lethal take. WS-Colorado would only be able to refer requests for lethal take in MBDP Form 37s to another agency and assist the public with nonlethal MBDP Form 37s.

Under **Alternative 2**, WS-Colorado could not provide assistance for human health and safety to the same extent as under **Alternative 1**, and airport programs using WS-Colorado would likely be compelled to conduct lethal management on their own or hire additional contractors. The need for lethal management at airports would arise because, after an extended period of time, raptors and other flocking birds habituate to the use of non-lethal methods and will no longer respond to hazing without lethal reinforcement. Furthermore,



livestock, agricultural, and other resource managers would either need to contract lethal BDM work through another entity or individual or perform the work themselves. Under this Alternative, the amount of non-target take has the potential to increase as non-WS individuals and entities attempt to conduct lethal BDM activities without WS-Colorado's professional support or assistance.

- **Alternative 3: WS-Colorado Provides Technical Assistance Only for Bird Damage Management.**

Under **Alternative 3**, WS-Colorado would only provide technical assistance for BDM, meaning that WS-Colorado employees would only respond to BDM requests for assistance by telephone and through workshops. The use of nonlethal and lethal methods would not be available and, as a result, many of the operational support staff positions would no longer be needed. Without operational support staff, field work would be reduced, and WS-Colorado would be unable to provide operational assistance to airports, livestock producers, agricultural producers, property owners, natural resource managers, etc. Further, without the availability of lethal and nonlethal methods, WS-Colorado would not be able to meet the purpose and need for BDM in Colorado. The inability of WS-Colorado personnel to physically visualize and observe bird damage being described by the person requesting assistance, would limit the effectiveness of the technical assistance provided. Additionally, due to a reduction in staff, technical assistance could be delayed.

Although this alternative minimizes target and non-target take by WS-Colorado, we anticipate a moderate increase in target and non-target take in the public-sector due to less experienced and, in some cases, less professional persons or entities performing BDM. This increase of private sector non-target take under **Alternative 3** would likely not result in significant negative impacts on non-target species populations, but the impacts would be higher than under **Alternative 1** and **Alternative 2**.

- **Alternative 4: No Federal WS-Colorado Bird Damage Management.**

Under **Alternative 4**, WS-Colorado would not provide any technical or operational assistance with BDM. As a result, WS-Colorado would be unable to alleviate or resolve BDM requests for assistance related to 1) human and pet health and safety, 2) livestock and agriculture, 3) natural resources, 4) property, or 5) disease.

WS-Colorado would not take any target or non-target species under this Alternative, but we anticipate a moderate increase in target and non-target take in the private sector, due to increased BDM activities being conducted by less experienced and, in some cases, less professional, entities and individuals. The quality of technical assistance available to the public would be greatly diminished, because state and federal agencies, and private nuisance wildlife control officers and companies have limited knowledge about BDM. Private entities/individuals would likely use less selective lethal and nonlethal methods, leading to an increase in non-target take. The level of non-target take is likely to be greatest under this alternative, and WS-Colorado would be unable to achieve its goal of minimizing non-target take in the state.



#### 14. Decision

I have carefully reviewed the Final EA and the input resulting from the public involvement process. I believe the need for action and issues identified in the Final EA would be best addressed through implementation of **Alternative 1**, the Proposed Action, to continue WS-Colorado's current BDM activities. **Alternative 1** is selected because: (1) it offers the greatest chance at maximizing effectiveness and benefits to the broadest range of affected resources within current funding constraints; (2) it offers a balanced approach to the issues of humaneness, ethics, and recreational values when all facets of the issue are considered; (3) it will continue to minimize risk of wildlife conflicts with the public through consultation and coordination with bird population regulatory agencies; (4) it will minimize risks to non-target species; (5) it will result in low to moderate short-term, localized, and intentional effects on bird populations under the direction of the state wildlife agency or USFWS to achieve specific goals beneficial to wildlife; and, (6) impacts on target bird populations would not be of sufficient magnitude, scope, or duration to result in substantial indirect impacts due to statewide populations declines.

#### 15. Finding of No Significant Impact

The analysis in the final EA indicates that **Alternative 1**, the Proposed Action, does not constitute a major federal action significantly affecting, individually or cumulatively, the quality of the human environment. I agree with this conclusion and, therefore, determine that an Environmental Impact Statement (EIS) will not be prepared. This determination is based on consideration of the following factors:

- A. The proposed activities will occur in limited areas of Colorado, when requested, and are not national or regional in scope. See **Section 1.9** for a more detailed discussion.
- B. The proposed activities will not significantly affect human health and safety. BDM methods are target specific and are unlikely to adversely affect human health and safety. In some cases (e.g., airports, airbases), BDM may be conducted to reduce risks to human health and safety associated with bird/plane collisions. See **Section(s) 2.8, 2.9, 2.14, and 3.3**.
- C. The proposed activities will not have an impact on unique characteristics of the geographic area, such as historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. WS-Colorado does not conduct any BDM activities on Special Management Areas (SMAs), including Wilderness Areas and Wilderness Study Areas nor does it anticipate conducting BDM activities in these areas unless requested by USFWS, BLM, CPW, or another federal agency. If requested to conduct BDM activities in unique historical, cultural, or geographic areas, WS-Colorado will supplement the final EA to analyze this issue. The nature of the methods proposed for removing birds do not significantly affect the physical environment. WS-Colorado annually works with public land management agencies to minimize the risk of beneficial or negative impacts on public land areas or to the general public. See **Section(s) 1.9, 1.14, and 1.19**.
- D. The effects on the quality of the human environment of the proposed activities are not highly controversial. Although some people are opposed to aspects of BDM, the failure of any particular special interest group to agree with every act of a federal agency does not result in



a controversy. Methods and impacts of BDM are not controversial among experts in the field of managing conflicts caused by wildlife. See **Section(s) 1.9.9, 2.6.1, and 2.4.4.**

- E. The possible effects of the proposed activities on the quality of the human environment are not highly uncertain and do not involve unique or unknown risks. Although exact population estimates are unavailable for some target species, the final EA uses the best information available. The Final EA uses conservative population estimates, and evaluates the upper limit of take to provide conservative bounds on the impacts which might occur. WS-Colorado used the most conservative bird population estimate (Rocky Mountain Avian Data Center) to perform population analysis impacts on each bird species because other population measurement techniques lacked conservative estimates, precision, and other quality measures. By using the most conservative estimates we are using the lowest estimate of the bird species population. Therefore, it is more likely that there are more birds on the landscape that were not counted due to poor survey protocols or observer deficits. The precision and quality measures provide confidence in the population estimate. Also, using the most conservative bird population estimates ensures that WS-Colorado will take fewer birds to alleviate damage. **Section 3.1** of the EA provides a detailed description of the data used, including identifying the limitations with each dataset and the data quality.

Consultation and coordination with state and federal agencies with management responsibility for preserving sustainable populations of target and non-target species and ecosystems and project monitoring helps to ensure that WS Colorado's BDM activities do not have significant unintended adverse impacts. Most of the methods described have been used by WS, WS-Colorado, or other wildlife agencies for years and any new methods have been scientifically evaluated for their efficacy and effectiveness prior to being used by operational staff. WS-Colorado only uses methods and techniques that are legal within the state of Colorado. The use of various tools and techniques are regulated by other federal, state, or local entities. See **Section(s) 1.9, 1.10, 1.15, 1.16, 1.17, 2.9, 2.10, and 3.3.**

- F. The proposed activities do not establish a precedent for actions with future significant effects or represent a decision in principle about a future consideration. Management decisions made by WS-Colorado based on the analysis in the final EA do not set a precedent for other WS state offices. Management decisions made for each WS state office are made independently, based on: state-specific information on wildlife populations and ecosystems; state-specific land use patterns; state, local and tribal regulations and policies; state-specific wildlife management plans and objectives; and, other state and local factors, including the types of BDM services requested and authorized by state and local (e.g. county) management entities. See **Section(s) 1.6, 1.7, 1.9, and 1.11.**

There are no significant cumulative effects identified by the final EA. All BDM activities, including removal, will be coordinated with the applicable regulatory agency (e.g. USFWS) to help ensure that the cumulative impacts of WS-Colorado's actions do not have significant adverse impacts on native wildlife populations and ecosystems. Analysis of direct, indirect and cumulative impacts on target and non-target species indicates that the impacts of WS-Colorado's lethal take are not of sufficient duration, scope, or magnitude to result in sustained reductions in bird populations and associated potential for disruptions to statewide populations. WS-Colorado has not taken or harmed any T&E species during its BDM activities



for over 20 years. WS-Colorado continues coordination with USFWS and CPW to avoid take of T&E species. See **Appendix A. Section 7 Consultation with the USFWS.**

- G. The proposed activities do not affect districts, sites, highways, structures or objects listed in or eligible for listing in the National Historic Register of Historic Places, nor will it cause loss or destruction of significant scientific cultural or historical resources. In general, BDM does not have the potential to affect historic resources. Further consultation will be requested if BDM actions are to be conducted that may affect historic resources. See **Section 1.9** and **1.14.**

For additional information regarding this decision, please contact Martin Lowney, State Director, USDA-Wildlife Services, 12345 West Alameda Parkway, Suite 204. Lakewood, CO 80228.



Director, Western Region  
USDA-Wildlife Services  
Fort Collins, Colorado

01/16/2020  
Date

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