

## DECISION

### ENVIRONMENTAL ASSESSMENT: REDUCING CANADA GOOSE DAMAGE THROUGHOUT THE STATE OF MARYLAND

#### I. PURPOSE

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program has prepared an Environmental Assessment (EA) to analyze the potential environmental and social impacts to the quality of the human environment from resolving damage, including conflicts and threats, to agricultural resources, property, natural resources, and human safety associated with Canada geese (*Branta canadensis*) in Maryland (USDA 2011). The EA documents the need for goose damage management in the State and assesses potential impacts on the human environment of three alternatives to address that need. WS' proposed action in the EA would continue an integrated damage management program to fully address the need to manage damage and threats associated with Canada geese when requested in the State.

The EA was prepared by WS to determine if the alternatives could have a significant impact on the quality of the human environment. Specifically, the EA was prepared to: 1) facilitate planning and interagency coordination, 2) streamline program management, 3) evaluate the potential environmental consequences of the alternatives related to the issues of managing damage caused by geese, and 4) clearly communicate to the public the analysis of individual and cumulative impacts.

#### II. NEED FOR ACTION

The need for action arises from requests for assistance received by WS to reduce and prevent damage associated with Canada geese from occurring to four major categories: agricultural resources, natural resources, property, and threats to human safety. WS would only conduct goose damage management activities after receiving a request for assistance. Before initiating goose damage management activities in the State, a Memorandum of Understanding, cooperative service agreement, or other comparable document would be signed between WS and the cooperating entity which lists all the methods the property owner or manager would allow to be used on property they own and/or manage. WS may also be requested to participate in disease surveillance and monitoring in the event of a disease outbreak or potential outbreak in the goose population.

Most requests for WS' assistance are associated with areas where geese congregate during migration periods and during nesting periods. Those requests for assistance are associated with fecal accumulations in public-use areas, damage to agricultural resources, hazards posed to aircraft from bird strikes, and damage occurring to property.

#### III. SCOPE OF ANALYSES IN THE EA

The EA evaluates goose damage management under three alternatives to reduce threats to human safety and to resolve damage to property, natural resources, and agricultural resources wherever such management is requested by a cooperator. The analyses in the EA are intended to apply to any action taken by WS to alleviate damage or threats of damage associated with geese that may occur in any locale and at any time within the State of Maryland. The EA emphasizes major issues as those issues relate to specific areas; however, the issues addressed apply wherever goose damage and the resulting damage management activities would occur. The standard WS Decision Model (Slate et al. 1992, USDA 1997, USDA 2011) would be the site-specific procedure for individual actions conducted by WS in the State.

The United States Fish and Wildlife Service (USFWS) has jurisdiction over the management of migratory birds and has specialized expertise in identifying and quantifying potential adverse affects to the human environment from goose damage management activities. The USFWS was a cooperating agency with WS in developing the EA to analyze cumulative take of geese and to ensure compliance with the National Environmental Policy Act (NEPA). Native migratory bird species are afforded protection from take by the Migratory Bird Treaty Act (MBTA); however, take can occur when deemed appropriate to the Act and a depredation permit has been issued by the USFWS or through the establishment of depredation orders which allow birds to be taken without the need for a depredation permit when the criteria of the order has been met. Therefore, any take involved with the alternatives would only occur when a depredation permit has been issued by the USFWS and only at levels permitted. The analyses in the EA would ensure the USFWS compliance with the NEPA for the issuance of depredation permits for the take of geese in Maryland, when required.

The EA was made available to the public for review and comment by a legal notice published in *Capitol Gazette* newspaper from January 19, 2011 through January 21, 2011. A notice of availability and the EA were also made available for public review and comment on the APHIS website at [http://www.aphis.usda.gov/wildlife\\_damage/nepa.shtml](http://www.aphis.usda.gov/wildlife_damage/nepa.shtml) beginning on January 12, 2011. A letter of availability was also mailed directly to agencies, organizations, and individuals with probable interest in goose damage management in the State. The public involvement process ended on February 25, 2011. WS received two comment letters during the public comment period. WS' responses to comments are presented in Appendix A of this Decision.

#### **IV. DECISIONS TO BE MADE**

Based on the scope of the EA, the decisions to be made are: 1) should WS conduct Canada goose damage management to alleviate damage to agriculture, property, natural resources, and threats to human safety, 2) should the Migratory Bird Program in USFWS Region 5 issue depredation permits to WS and other entities to conduct goose damage management activities, 3) should WS conduct disease surveillance and monitoring in the goose population when requested by the Maryland Department of Natural Resources (MDNR), the USFWS, and other agencies, 4) should WS implement an integrated wildlife damage management strategy, including technical assistance and direct operational assistance, to meet the need for goose damage management in Maryland, 5) if not, should WS attempt to implement one of the alternatives to an integrated damage management strategy as described in the EA, and 6) would the proposed action result in adverse impacts to the environment requiring the preparation of an Environmental Impact Statement (EIS).

#### **V. RELATIONSHIP OF THE EA TO OTHER ENVIRONMENTAL DOCUMENTS**

The relationship of the EA to other documents that address waterfowl management were also discussed in the EA including WS' programmatic Final Environmental Impact Statement (FEIS), the FEIS developed by the USFWS in cooperation with WS addressing the management of resident Canada goose populations (USFWS 2005), and the management plan for resident Canada goose populations in the Atlantic Flyway (Atlantic Flyway Council 1999).

#### **VI. AUTHORITY AND COMPLIANCE**

WS is authorized by law to reduce damage caused by wildlife through the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C. 426-426b), as amended and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c). Management of native migratory birds is the responsibility of the USFWS under the MBTA. As the authority for the management of migratory birds, the USFWS was consulted during the development of the EA and provided input to ensure an interdisciplinary approach according to the NEPA and agency

mandates, policies, and regulations. The MDNR is responsible for managing wildlife in the State of Maryland, including Canada geese. Information from the USFWS and the MDNR has been provided to WS to assist in the analysis of potential impacts of WS' proposed activities on goose populations in the State.

The EA and this Decision ensures WS' actions comply with the NEPA, with the Council on Environmental Quality guidelines (40 CFR 1500), and with APHIS' NEPA implementing regulations (7 CFR 372). All Canada goose damage management activities, including disposal requirements, are conducted consistent with: 1) the Endangered Species Act of 1973, 2) the MBTA, 3) the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 5) applicable Executive Orders, and 6) applicable federal, State, and local laws, regulations and policies, including WS' Directives.

## **VII. AFFECTED ENVIRONMENT**

Canada geese can be found throughout the year across the State of Maryland (Mowbray et al. 2002) where suitable habitat exists for foraging, loafing, roosting, and breeding. Geese are capable of utilizing a variety of habitats in the State but generally use areas adjacent to or near bodies of water with relatively short vegetation. Nesting habitat could include wetlands, ponds, meadows, gravel bars along rivers, islands, agricultural fields, along irrigation ditches, reservoirs, sewage lagoons, city lakes, golf courses, subdivisions, highway medians, and on top of city buildings (Mowbray et al. 2002). Geese are also known to loaf, roost, and forage in similar habitat near water bodies preferring areas that are open with short vegetation which allows geese to detect approaching predators (Mowbray et al. 2002). During the migration periods, geese often roost on or near bodies of water but are known to travel to other areas to forage, such as agricultural fields. Since geese can be found throughout the State, requests for assistance to manage damage or threats of damage could occur in areas occupied by geese.

## **VIII. ISSUES ADDRESSED IN THE ANALYSIS OF ALTERNATIVES**

Issues related to wildlife damage management were initially identified and defined during the development of WS' programmatic FEIS (USDA 1997). Issues related to Canada goose damage management in the State were defined and preliminary alternatives were identified through consultation with the USFWS and with the MDNR. The EA was also made available to the public for review and comment through notices published in local media and through direct notification of interested parties. Chapter 2 of the EA describes in detail the issues considered and evaluated in the EA (USDA 2011). The following issues were identified as important to the scope of the analysis (40 CFR 1508.25) with each alternative evaluated in the EA relative to the impacts on the major issues:

- Issue 1 - Effects on Canada Goose Populations
- Issue 2 - Effectiveness of Canada Goose Damage Management Methods
- Issue 3 - Effects on Non-target Wildlife Species Populations, Including T&E Species
- Issue 4 - Humaneness and Animal Welfare Concerns of Methods
- Issue 5 - Effects on the Aesthetic Values of Canada Geese
- Issue 6 - Effects of Management Methods on Human Health and Safety
- Issue 7 - Effects on the Regulated Harvest of Canada Geese

## **IX. ISSUES CONSIDERED BUT NOT ANALYZED IN DETAIL WITH RATIONALE**

In addition to those issues analyzed in detail, several issues were identified during the development of the EA but were not considered in detail. The rationale for the decision not to analyze those issues in detail is discussed in the EA. Those issues not analyzed in detail were:

- Appropriateness of Preparing an EA For Such a Large Area
- WS' Impact on Biodiversity
- A Loss Threshold Should Be Established Before Allowing Lethal Methods
- Canada Goose Damage Management Should Not Occur at Taxpayer Expense
- Cost Effectiveness of Management Methods
- Canada Goose Damage Should Be Managed By Private Nuisance Wildlife Control Agents
- Effects from the Use of Lead Ammunition in Firearms
- Impacts of Dispersing Geese to other Areas
- Site Specific Analysis Should be Made for Every Location Where Goose Damage Management Could Occur
- Effects on Human Health from Consumption of Geese Donated
- Final Disposition of Euthanized Geese that are not Donated
- Impacts of Avian Influenza on Bird Populations

## **X. DESCRIPTION OF THE ALTERNATIVES**

The following three alternatives were developed to respond to the issues identified in Chapter 2 of the EA and to address the need for action described in Chapter 1 of the EA (USDA 2011). Chapter 4 in the EA analyzes the environmental consequences of each alternative in comparison to determine the extent of actual or potential impacts on the issues. Below is a summary of the alternatives analyzed in detail.

### ***Alternative 1 – No Canada Goose Damage Management Conducted by WS***

Under the no involvement alternative, WS would not be involved with any aspect of Canada goose damage management activities in Maryland. All requests for assistance received by WS would be referred to the USFWS, the MDNR, and/or other entities. The take of geese by other entities could continue to occur under this alternative when damage or threats were occurring in accordance with depredation permits issued by the USFWS as well as under the depredation orders and during the regulated hunting season in the State. Most of the methods described in Appendix B of the EA under this alternative to alleviate goose damage and threats would be available under any of the alternatives. The only method that would not be available to manage damage caused by geese under this alternative would be the immobilizing drug alpha chloralose which is only available for use by WS' employees.

### ***Alternative 2 - Canada Goose Damage Management by WS through Technical Assistance Only***

Under the technical assistance only alternative, WS would address every request for assistance with technical assistance only. Technical assistance would provide those persons seeking assistance with information and recommendations on goose damage management that those cooperators could employ without WS' direct involvement in the action. Technical assistance could be employed through personal or telephone consultations and through site visits. Under this alternative, the immediate burden of resolving threats or damage associated with geese would be placed on those persons experiencing damage. Those persons could employ those methods recommended by WS, could employ other methods, or could take no further action. Only those methods legally available for use by the appropriate individual would be recommend or loaned by WS. WS would continue to recommend an integrated approach using lethal and non-lethal methods using those methods available. Similar to Alternative 1, those methods described in Appendix B of the EA would be available to those persons experiencing damage or threats associated with geese except for alpha chloralose.

Those persons experiencing damage or are concerned with threats posed by geese could seek assistance from other governmental agencies, private entities, or conduct damage management on their own. Those entities could implement a goose damage management program using those methods legally available listed in Appendix B or could take no action. In order for a property owner or manager to use lethal methods, they must apply for their own depredation permit to take geese from the USFWS. Under this alternative, WS could evaluate the damage and complete a Migratory Bird Damage Report which would include information on the extent of the damages, the number of geese present, and a recommendation for the number of geese that could be taken to best alleviate the damages. Following USFWS review of a complete application for a depredation permit from a property owner or manager and the Migratory Bird Damage Report, a depredation permit could be issued to authorize the lethal take of a specified number of geese. In addition, entities authorized could lethally remove resident geese and their nests/eggs under the depredation orders established by the USFWS which were addressed in Chapter 1 of the EA (USDA 2011).

### ***Alternative 3 - Continuing the Current Integrated Approach to Managing Canada Goose Damage (Proposed Action/No Action)***

The proposed action/no action alternative would continue the current implementation of an adaptive integrated approach utilizing non-lethal and lethal techniques, as deemed appropriate using the WS Decision Model, to reduce damage and threats caused by geese in the State. A major goal of the program would be to resolve and prevent goose damages and to reduce threats to human safety. To meet this goal, WS would continue to respond to requests for assistance with, at a minimum, technical assistance, or when funding is available, operational damage management. Funding could occur through federal appropriations or from cooperative funding. Currently, direct operational assistance provided by WS in the State is conducted through cooperative funding.

All methods addressed in Appendix B of the EA could be employed by WS to resolve requests for assistance to manage damage associated with geese in the State. Using the WS Decision model discussed in the EA, WS would employ methods singularly or in combination in an integrated approach to alleviate damage caused by geese.

## **XI. ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL WITH RATIONALE**

Additional alternatives were also evaluated but were not considered in detail in the EA with rationale provided (USDA 2011). The alternatives analyzed but not in detail included:

- Non-lethal Methods before Lethal Methods
- Use of Lethal Methods Only
- Trap and Translocate Geese Only
- Use of Non-lethal Methods Only to Resolve Damage or Threats
- Reducing Damage by Managing Canada Goose Populations through the Use of Reproductive Inhibitors
- Compensation for Bird Damage

## **XII. STANDARD OPERATING PROCEDURES**

The WS program in Maryland uses many standard operating procedures and conducts work pursuant to WS' Directives. Standard operating procedures are discussed in detail in Chapter 5 of WS' programmatic FEIS (USDA 1997) and in Chapter 3 of the EA (USDA 2011). Those standard operating procedures would be incorporated into activities conducted by WS when addressing goose damage and threats in the

State under the proposed action alternative (Alternative 3) and when applicable, under the technical assistance alternative (Alternative 2). If the no involvement by WS alternative (Alternative 1) is selected, the lack of assistance by WS would preclude the employment or recommendation of those standard operating procedures addressed in the EA.

### **XIII. ENVIRONMENTAL CONSEQUENCES FOR ISSUES ANALYZED IN DETAIL**

The EA analyzes the environmental consequences of each alternative as each alternative relates to the issues identified to provide information needed for making informed decisions in selecting the appropriate alternative to address the need for action. The following resource values in Maryland 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 listed in threatened and endangered (T&E) species recovery plans), 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 as a result of any of the alternatives. Those alternatives would meet the requirements of applicable laws, regulations, and Executive Orders, including the Clean Air Act and Executive Order 13514.

Chapter 4 of the EA analyzes the environmental consequences of each alternative in comparison to determine the extent of actual or potential impacts on those major issues identified in the EA. The proposed action/no action alternative serves as the baseline for the analysis and the comparison of expected impacts among the alternatives. The analysis also takes into consideration mandates, directives, and the procedures of WS, the USFWS, and the MDNR. The analyses in Chapter 4 of the EA indicate the potential impacts to the quality of the human environment would be similar across the alternatives.

#### **Issue 1 - Effects on Canada Goose Populations**

Under the proposed action, WS would incorporate non-lethal and lethal methods described in Appendix B of the EA in an integrated approach in which all or a combination of methods could be employed to resolve a request for assistance. WS would recommend and operational employ both non-lethal and lethal methods, as governed by federal, state, and local laws and regulations under the proposed action. The appropriateness of methods and techniques would be applied based on the WS Decision Model using inputs from each request for assistance.

Non-lethal methods can disperse or otherwise make an area unattractive to geese that are causing damage; thereby, reducing the presence of those geese at the site and potentially the immediate area around the site where non-lethal methods are employed. Non-lethal methods would be given priority when addressing requests for assistance (WS Directive 2.101). However, non-lethal methods would not necessarily be employed to resolve every request for assistance if deemed inappropriate by WS' personnel using the WS Decision Model, especially in situations where the requesting entity has already attempted to resolve the damage or threats of damage using non-lethal methods. Non-lethal methods are used to excluded, harass, and disperse target wildlife from areas where damage or threats are occurring. When effective, non-lethal methods would disperse geese from the area resulting in a reduction in the presence of those geese at the site where those methods were employed. From FY 2005 through FY 2009, WS employed non-lethal methods to harass and disperse geese in the State as part of an integrated approach to managing damage and threats. Non-lethal methods are generally regarded as having minimal impacts on overall populations of wildlife since those species are unharmed. The continued use of non-lethal methods often leads to the habituation of birds to those methods which can decrease the effectiveness of those methods. Lethal methods are often employed to reinforce non-lethal methods and to remove geese that have been identified as causing damage or posing a threat to human safety. The use of lethal methods would result

in local reductions of geese in the area where damage or threats were occurring. The number of geese removed from the population using lethal methods would be dependent on the number of requests for assistance received, the number of geese involved with the associated damage or threat, and the efficacy of methods employed.

Geese that could be lethally taken by WS under the proposed action could be taken by those persons experiencing damage or threats in the absence of WS' direct involvement under the other alternatives since the take of geese can occur when a depredation permit has been issued by the USFWS pursuant to the MBTA. In addition, geese could be lethally taken to alleviate damage or reduce threats under depredations orders and/or during the regulated hunting seasons in the State. Since the lack of WS' direct involvement does not preclude the taking of geese by those persons experiencing damage or threats, WS' involvement in the taking of those geese under the proposed action would not be additive to the number of geese that could be taken by other entities in the absence of WS' involvement. As was shown in the EA, geese have been lethally taken by other entities in the State to alleviate damage or threats of damage. The number of geese taken annually would likely be similar across the alternatives, since the take of geese could occur even if WS was not directly involved with providing assistance under Alternative 1 and Alternative 2. Those activities proposed, including the proposed take of geese, under Alternative 3 would not be additive to the number of geese that could be taken by other entities under the other alternatives despite the lack of WS' direct involvement.

In addition, most non-lethal and lethal methods available for resolving damage or threats associated with geese would be available under any of the alternatives. The immobilizing drug alpha chloralose would be the only method that would not be available under all of the alternatives. The use of alpha chloralose would only be available under the proposed action alternative since the method is only available for use by WS' personnel. Therefore, WS' use of those methods available under all of the alternatives would not be additive to the environmental status quo since those methods could be employed by any entity experiencing damage or threats caused by geese. Alpha chloralose is only available to live-capture waterfowl, coots, and pigeons. Based on the evaluation in the EA (USDA 2011), the availability of alpha chloralose to manage damage or threats of damage associated with geese under the proposed action would not pose significant environmental risks when used by trained WS' personnel and in accordance with the use guidelines.

Based on those quantitative and qualitative parameters addressed in the EA, the proposed take levels of geese addressed under the proposed action alternative (Alternative 3) would be considered of low magnitude when compared to population trend data, population estimates, and harvest data. The number of geese that could lethally be taken annually under the alternatives is likely to be similar since the take of geese could occur whether WS was requested to conduct those activities or not. As was shown in the EA, other entities have addressed geese to alleviate damage; therefore, any geese that could be lethally taken under the proposed action alternative could be taken by other entities under the other alternatives. WS does not have the authority to regulate the number of geese taken annually by other entities. WS' take of geese would only occur at levels authorized and only when permitted by the USFWS for those species for which a depredation permit is required for take.

In addition, based on the levels of take that have occurred previously by WS and other entities and in anticipation of the USFWS permitting the take of geese at levels addressed in the EA, the cumulative take of levels addressed are also of low magnitude when compared to those quantitative and qualitative parameters addressed in the EA. The permitting of the take by the USFWS ensures that cumulative take levels occur within allowable levels to maintain goose populations and to meet population objectives.

## **Issue 2 - Effectiveness of Canada Goose Damage Management Methods**

The methods available to those persons experiencing damage would be similar across the alternatives analyzed in detail. The only method that would not be available under all the alternatives analyzed in detail would be the use of alpha chloralose which is restricted to use by personnel of WS only. Alpha chloralose would only be available and employed to alleviate damage or threats of damage under the proposed action alternative.

Since those methods available for resolving goose damage would be available to those persons experiencing damage or threats under all the alternatives, the effectiveness of those methods when used as intended would be similar amongst the alternatives. A common issue raised is that the use of lethal methods is ineffective because additional geese are likely to return to the area, either after removal occurs or the following year when geese return to the area which gives the impression of creating a financial incentive to continue the use of only lethal methods. This assumes geese only return to an area where damage was occurring if lethal methods are used. However, the use of non-lethal methods is also often temporary which could result in geese returning to an area where damage was occurring once those methods are no longer used. The common factor when employing any method is that geese would return if suitable habitat continues to exist at the location where damage was occurring and goose densities are sufficient to occupy all available habitats.

Dispersing geese using pyrotechnics, repellents, trained dogs, or any other non-lethal method often requires repeated application to discourage geese from an area which increases costs, moves geese to other areas where they could cause damage, and are temporary if habitat conditions remain unchanged. Dispersing and the translocating of geese could be viewed as moving a problem from one area to another which would require addressing damage caused by those geese at another location. WS' recommendation of or use of techniques to modifying existing habitat or making areas unattractive to geese is discussed in Appendix B of the EA. WS' objective is to respond to request for assistance with the most effective methods and to provide for the long-term solution to the problem using WS' Decision Model to adapt methods in an integrated approach to managing goose damage that is agreed upon by the cooperator.

As part of an integrated approach to managing goose damage, WS would have the ability to adapt methods to damage situations to effectively reduce or prevent damage from occurring. Under the proposed integrated approach, all methods, individually or in combination, could be employed as deemed appropriate through WS' Decision Model to address requests for assistance. WS' objective when receiving a request for assistance under the proposed action is to reduce damage and threats to human safety or to prevent damage from occurring using an integrated approach to managing goose damage. Therefore, under the proposed action, WS would employ methods adaptively to achieve that objective.

## **Issue 3 - Effects on Non-target Wildlife Species Populations, Including T&E Species**

Another issue often raised is the potential impacts to populations of wildlife that could be taken as non-targets during damage management activities. While every effort is made to minimize the risks of lethally taking non-target wildlife, the potential does exist for the unintentional take of non-targets during damage management activities. Since FY 2005, no non-targets are known to have been killed by WS during previous goose damage management activities using an integrated approach. Methods available to address goose damage would be similar across all the alternatives. Therefore, risks to non-targets from the use of those methods would be similar across the alternatives analyzed in detail when those methods are used as intended. The only methods that would not be available under all the alternatives analyzed in detail would be the use of alpha chloralose which is restricted to use by personnel of WS only. Although some risks to non-targets do occur from the use of those methods, those risks are minimal when those methods are used by trained personnel in accordance with WS Directive 2.430 and use guidelines. Based

on information in the EA (USDA 2011), the use patterns of alpha chloralose would not pose increased risks to non-targets.

Under the no involvement by WS alternative, WS would not be directly involved with any aspect of goose damage management; therefore, no direct impacts to non-targets would occur from WS. Under the technical assistance only alternative, WS could provide information on the proper use of methods and provide demonstration on the use of methods but would not be directly involved with using methods to alleviate goose damage or threats. Similar to the no WS involvement alternative, under the technical assistance alternative, if methods are applied as intended and with regard for non-target hazards, those methods would not result in the decline in non-target species' populations. If requestors are provided technical assistance but do not implement any of the recommended actions and takes no further action, the potential impacts to non-targets would be lower compared to the proposed action. If those persons requesting assistance implement recommended methods appropriately and as instructed or demonstrated, the potential impacts to non-targets would be similar to the proposed action. Methods or techniques not implemented as recommended or used inappropriately would likely increase risks to non-targets. When employing direct operational assistance under the proposed action alternative, WS could employ methods and use techniques which would avoid non-target take as described in Chapter 3 of the EA under the standard operating procedures and those measures and procedures discussed in WS' programmatic FEIS (USDA 1997).

The ability to reduce damage and threats caused by geese would be variable based upon the skills and abilities of the person implementing damage management actions under Alternative 1 and Alternative 2. If those methods available are applied as intended, risks to non-targets would be minimal to non-existent. If methods available are applied incorrectly or applied without knowledge of goose behavior, risks to non-target wildlife would be higher under any of the alternatives. If frustration from the lack of available assistance under Alternative 1 and Alternative 2 causes those persons experiencing goose damage to use methods that are not legally available for use, risks to non-targets would be higher under those alternatives. People have resorted to the use of illegal methods to resolve wildlife damage that have resulted in the lethal take of non-target wildlife (USDA 1997, White et al. 1989, USFWS 2001, Food and Drug Administration 2003). Under the proposed action alternative, those persons could request direct operational assistance from WS to reduce damage and threats occurring which increases the likelihood that non-target species would be unaffected by damage management activities.

Based on a review of those T&E species listed in the State during the development of the EA (see Appendix C in the EA), WS determined that activities conducted pursuant to the proposed action would not likely adversely affect those species listed in the State by the USFWS and the National Marine Fisheries Services nor their critical habitats that were addressed in the Biological Opinion issued by the USFWS on WS' programmatic activities (USDA 1997). In addition, WS has determined that the proposed action alternative would have no effect on those species listed in Maryland that were not addressed in the Biological Opinion issued by the USFWS. Based on a review of the proposed action and the methods available under the proposed action, WS has determined that the proposed goose damage management program would have no effect on any of the species listed in the State by the MDNR.

#### **Issue 4 - Humaneness and Animal Welfare Concerns of Methods**

The issue of humaneness was also analyzed in detail in relationship to the alternatives. Since many methods addressed in Appendix B of the EA are available under all the alternatives, the issue of method humaneness would be similar for those methods across all the alternatives. As stated previously alpha chloralose is the only method that would not be available under all the alternatives. The ability of WS to provide direct operational assistance under the proposed action alternative would ensure methods are employed by WS as humanely as possible. Under the other alternatives, methods could be used

inhumanely if used inappropriately or without consideration of goose behavior. However, most methods, when used as intended, would be considered humane and when attended to appropriately, would not increase distress of geese.

#### **Issue 5 - Effects on the Aesthetic Values of Canada Geese**

Geese often provide aesthetic enjoyment to many people in the State through observations, photographing, and knowing they exist as part of the natural environment. Under all the alternatives, methods available that could be employed are intended to make resources unavailable or unattractive. Therefore, the use of methods often results in the removal of geese from the area where damage is occurring or the dispersal of geese from an area. Since methods available are similar across the alternatives, the use of those methods would have similar potential impacts on the aesthetics of geese. However, the dispersal and/or take of geese under the alternatives would not reach a magnitude that would prevent the ability to view geese outside of the area where damage was occurring. The effects on the aesthetic values of geese would therefore be similar across the alternatives and would be minimal.

#### **Issue 6 - Effects of Management Methods on Human Health and Safety**

The threats to human safety of methods available would be similar across the alternatives since those methods would be available across the alternatives. Based on the evaluation in the EA, the availability of alpha chloralose under the proposed action would not increase risks to human safety from the use of the method (USDA 2011). Although risks do occur from the use of alpha chloralose, when used in consideration of human safety, the use does not pose additional risks to human safety beyond those associated with the use of other methods. However, the expertise of WS' employees in using those methods available likely would reduce threats to human safety since WS' employees are trained and knowledgeable in the use of those methods. If methods are used incorrectly or without regard for human safety, risks to human safety would increase under any of the alternatives that those methods could be employed.

#### **Issue 7 - Effects on the Regulated Harvest of Canada Geese**

Geese can be harvested in the State during annual hunting seasons which allow geese to be harvested during an early September hunting season, the normal waterfowl season, and a late season. WS would have no impact on regulated hunting under Alternative 1 since WS would not be involved with any aspect of goose damage management. Similarly, WS would have no impact on regulated hunting under Alternative 2 since WS would not lethally remove geese under the alternative. However, resource/property owners may remove geese under depredation permits and depredation orders issued by the USFWS resulting in impacts similar to the proposed action and Alternative 1. The recommendation of non-lethal methods could disperse or exclude geese from areas under this alternative which could limit the ability of those persons interested to harvest geese in the damage management area. However, goose populations would be unaffected by WS under the technical assistance alternative (Alternative 2).

The USFWS and the MDNR could continue to regulate goose populations through adjustments in allowed take during the regulated harvest season and through depredation orders or permits to manage damage or threats of damage. The magnitude of lethal take addressed in the proposed action would be low when compared to the mortality of geese from all known sources. When WS' proposed take of geese was included as part of the known mortality of geese from other sources and compared to the known population of geese, the impact on goose populations was below the level of removal required to lower population levels. The USFWS and the MDNR would determine the number of geese taken annually by WS through the issuance of depredation permits.

Goose damage management activities conducted by WS would occur after consultation and approval by the USFWS and the MDNR. With oversight by the USFWS and the MDNR, the number of geese allowed to be taken by WS would not limit the ability of those persons interested to harvest geese during the regulated season. All take by WS would be reported to the USFWS annually to ensure take by WS is incorporated into population management objectives established for goose populations. Based on the limited take proposed by WS and the oversight by the USFWS and the MDNR, WS' take annually would have no effect on the ability of those persons interested to harvest geese during the regulated harvest season.

#### **XIV. CUMULATIVE IMPACTS OF THE PROPOSED ACTION**

No significant cumulative environmental impacts are expected from any of the three alternatives, including the proposed action. Under the proposed action, the lethal removal of geese by WS would not have significant impacts on statewide goose populations when known sources of mortality are considered. No risk to public safety is expected when activities are provided or recommended to requesting individuals in Alternative 2 and Alternative 3 since only trained and experienced personnel would conduct and/or recommend damage management activities. There is a slight increased risk to public safety when persons who reject assistance and recommendations and conduct their own activities under Alternative 2, and when no assistance is provided under Alternative 1. However, under all of the alternatives, those risks would not be to the point that the impacts would be significant. The analysis in this EA indicates that an integrated approach to managing damage and threats caused by geese would not result in significant cumulative adverse impacts on the quality of the human environment.

#### **XV. DECISION AND RATIONALE**

Based on the analyses of the alternatives developed to address those issues in the EA, including individual and cumulative impacts of those alternatives, the following decision has been reached:

##### ***Decision***

I have carefully reviewed the EA prepared for to meet the need for action. I find the proposed action alternative (Alternative 3) 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 EA adequately addresses the identified issues which reasonably confirm that no significant impact, individually or cumulatively, to wildlife populations or the quality of the human environment are likely to occur from the proposed action, nor does the proposed action constitute a major federal action. Therefore, the analysis in the EA does not warrant the completion of an EIS.

Based on the analyses in the EA, the issues identified are best addressed by selecting Alternative 3 (proposed action/no action) and applying the associated standard operating procedures discussed in Chapter 3 of the EA. Alternative 3 successfully addresses (1) goose damage management using a combination of the most effective methods and does not adversely impact the environment, property, human health and safety, and/or non-target species, including T&E species; (2) it offers the greatest chance of 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; (3) it presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety; and (4) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of those issues are considered. Further analysis would be triggered if changes occur that broaden the scope of goose damage management activities in the State, that affect the natural or human environment, or from the issuance of new environmental

regulations. Therefore, it is my decision to implement the proposed action/no action alternative (Alternative 3) as described in the EA.

***Finding of No Significant Impact***

Based on the analyses provided in the EA, there are no indications that the proposed action (Alternative 3) 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 EIS should not be prepared. This determination is based on the following factors:

1. Goose damage management as conducted by WS in the State is not regional or national in scope.
2. The proposed action would pose minimal risk to public health and safety. Risks to the public from many of the methods described in the EA were determined to be low in a formal risk assessment (USDA 1997). Based on the analyses in the EA, the methods available would not adversely affect human safety based on their use patterns.
3. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected. WS' standard operating procedures and adherence to applicable laws and regulations would further ensure that WS' activities do not harm the environment.
4. The effects on the quality of the human environment are not highly controversial. Although there is some opposition to goose 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 by this assessment or other actions implemented or planned within the area.
8. The proposed activities would not 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. WS has determined that the proposed program would not adversely affect any federally listed T&E species currently listed in the State that were addressed in the Biological Opinion issued by the USFWS on WS' programmatic activities (USDA 1997). In addition, WS has determined the proposed action would have no effect on federally-listed T&E species that are listed in the State but were not addressed in the Biological Opinion. WS has also determined that the proposed activities would have no effect on species listed as threatened or endangered by the State.
10. The proposed action would be in compliance with all applicable Federal, State, and local laws.

## ***Rationale***

The rationale for this decision is based on several considerations. This decision takes into account public comments, social/political and economic concerns, public health and safety, and the best available science. The foremost considerations are that: 1) goose damage management would only be conducted by WS at the request of landowners/managers, 2) management actions are consistent with applicable laws, regulations, policies and orders, and 3) no adverse impacts to the environment were identified in the analysis. As a part of this Decision, the WS program in Maryland would continue to provide effective and practical technical assistance and direct management techniques that reduce damage and threats of damage.

  
Charles S. Brown, Director-Eastern Region  
USDA/APHIS/WS  
Raleigh, North Carolina

3/24/11  
Date

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## APPENDIX A

### RESPONSES TO COMMENTS ON THE ENVIRONMENTAL ASSESSMENT: REDUCING CANADA GOOSE DAMAGE THROUGHOUT THE STATE OF MARYLAND

During the public involvement process for the EA, WS received two comment letters. WS has reviewed those comments to identify additional issues, alternatives, and/or concerns that were not addressed in the EA. Those comments received during the public involvement process are addressed below along with WS' response to those comments.

#### **Comment 1 – Resident goose population has increased but mainly in areas closed to hunting**

The commenter states the resident Canada goose population in the State has increased significantly but largely in areas where hunting is prohibited. The EA addresses population information and trends associated with the resident goose population in Maryland in Section 1.2 of the EA and in Section 4.1 of the EA (USDA 2011). In addition, the potential effects of damage management activities on the regulated harvest of Canada geese in the State was identified as an issue during the scoping process of the EA. The issues was described in Chapter 2 of the EA and the consequences of the conducting the alternatives to address the need for action were analyzed in detail in Chapter 4 of the EA.

Since 1980, the number of geese observed along routes surveyed during the breeding season in Maryland has shown overall annual increases (Sauer et al. 2008). Geese are extremely adaptable and may use the resources provided by humans in urban landscapes for nesting, rearing young, molting, feeding, and loafing. Increasing populations of resident geese are resulting in increasing numbers of conflicts with human activities and increasing concerns related to human health and safety. Those problems frequently occur on private properties, residential communities, apartment/condominium complexes, municipal parks, schools, hospitals, natural/habitat restoration sites, corporate and industrial sites, office complexes, roadways, airports, and other areas (Atlantic Flyway Council 1999, USFWS 2005).

As was addressed in the EA, the USFWS is responsible for the overall management of migratory birds, including Canada geese. Hunting seasons are established in the State by the MDNR under frameworks determined by the USFWS pursuant to the MBTA. Areas where hunting can and cannot occur within the State is determined the MDNR and/or the local property owner or governing entity. WS has no authority to determine areas where hunting can or cannot occur within the State.

#### **Comment 2 – Resident goose population should be reduced but not at public expense**

The comment indicates the resident Canada goose population in the State should be reduced but the reduction should not be at the expense of the public (*i.e.*, using government employees or contractors using taxpayer money). The concern that goose damage management should not be provided at the expense of the taxpayer or that activities should be fee-based was identified as an issue in the EA but was not analyzed in detail (see Section 2.3 of the EA).

The issue was not analyzed in detail since activities conducted in the State for the management of damage and threats to human safety from geese would be funded through cooperative service agreements with individual property owners or managers. Therefore, funding for damage management activities would be derived primarily from those entities requesting assistance from WS and would not be conducted at the expense of taxpayers.

In addition, the EA in Section 2.3 also addressed the issue that goose damage management activities should be conducted by private wildlife control agents. Private nuisance wildlife control agents could be

contacted to reduce goose damage for property owners. Some property owners would prefer to use a private nuisance wildlife control agent because the nuisance wildlife agent is located in closer proximity and thus could provide the service at less expense, or because they prefer to use a private business rather than a government agency. However, some property owners would prefer to contract with a government agency. In particular, large industrial businesses and cities may prefer to use WS because of security and safety issues and reduced administrative burden. The use of non-lethal or lethal methods often disperses geese from areas where damage is occurring to areas outside the damage area which could serve to move geese from those less accessible areas to places accessible to hunters.

### **Comment 3 – Revise regulations and laws to allow hunting in areas where hunting is restricted**

The commenter suggests that “[r]egulations and Laws [sic] should be revised to permit hunters to hunt geese in now restricted areas...” with the implication that hunters should be allowed to address geese causing damage in areas where hunting is currently prohibited. The authorities of federal and state agencies in managing Canada goose populations and damage were addressed in Section 1.6 of the EA (USDA 2011). As described in Section 1.6 of the EA, establishing hunting seasons and the allowed take during those seasons is the responsibility of the MDNR under frameworks developed by the USFWS. WS does not have the authority to establish hunting seasons or to set allowed harvest numbers during those seasons. WS would only provide assistance with managing damage or threats of damage associated with Canada geese when requested by a property owner or manager. Therefore, WS has no authority to determine where hunting can occur. As is also stated in the EA, WS could recommend hunting as a method to reduce damage or threats of damage when appropriate.

### **Comment 4 – Allowing hunting in restricted areas using appropriate methods can be safe**

The commenter suggests that risks to the public would be minimal in areas where hunting is currently prohibited if the appropriate ammunition is used to harvest geese during the hunting season. As stated previously, WS does not have the authority to determine where hunting is permitted and does not have the authority to restrict the type of ammunition used during those hunting activities.

### **Comment 5 – Goose damage management is best achieved under the Proposed Action Alternative**

The alternatives were developed to address the identified issues associated with managing damage caused by Canada geese in the State that were discussed in Chapter 2 of the EA and to meet the need for action discussed in Chapter 1 of the EA. The no action/proposed action alternative would continue the current implementation of an adaptive integrated approach utilizing non-lethal and lethal techniques, as deemed appropriate using the WS Decision Model, to reduce damage and threats caused by Canada geese in the State. A major goal of the program would be to resolve and prevent goose damage and to reduce threats to human safety. To meet this goal, WS, in coordination with the USFWS and the MDNR, would continue to respond to requests for assistance with, at a minimum, technical assistance, or when funding is available, operational damage management.

The adaptive approach to managing damage associated with geese would integrate the use of the most practical and effective methods to resolve a request for damage management as determined by site-specific evaluation to reduce damage or threats to human safety for each request.

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