DECISION

ENVIRONMENTAL ASSESSMENT: REDUCING CANADA GOOSE DAMAGE THROUGHOUT THE COMMONWEALTH OF MASSACHUSETTS

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 health and safety associated with Canada geese (*Branta canadensis*) in Massachusetts (USDA 2011). The EA documents the need for goose damage management in the Commonwealth 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 Commonwealth.

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 health and safety. WS would only conduct goose damage management activities after receiving a request for assistance. Before initiating goose damage management activities in the Commonwealth, 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 Commonwealth of Massachusetts. 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 could 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 Commonwealth.

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 effects 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 Massachusetts, when required. In addition, the Massachusetts Division of Fisheries and Wildlife (MDFW) was also a cooperating agency during the development of the EA to ensure population objectives for Canada geese in the Commonwealth were incorporated into the EA.

The EA was made available to the public for review and comment by a legal notice published in the *Boston Herald* newspaper from May 30, 2011 through June 1, 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 beginning on May 25, 2011. A letter of availability was also mailed directly to agencies, organizations, and individuals with probable interest in goose damage management in the Commonwealth. The public involvement process ended on June 29, 2011. WS received one comment letter during the public comment period. WS' responses to the comment letter 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 health and 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 MDFW, 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 Massachusetts, 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; USDA 1997), the EA developed by WS that evaluated activities to reduce aircraft strike risks associated with wildlife, including geese, at airports in the Commonwealth (USDA 2002), 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 MDFW is responsible for managing wildlife in the Commonwealth of Massachusetts, including Canada geese. Information from the USFWS and the MDFW has been provided to WS to assist in the analysis of potential impacts of WS' proposed activities on goose populations in the Commonwealth.

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, Commonwealth, and local laws, regulations and policies, including WS' Directives.

VII. AFFECTED ENVIRONMENT

Canada geese can be found throughout the year across the Commonwealth of Massachusetts (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 Commonwealth 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 Commonwealth, 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 Commonwealth were defined and preliminary alternatives were identified through consultation with the USFWS and with the MDFW. 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 of Damage Management Activities 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 (Instead of an EIS) 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
- Impacts of Avian Influenza on Bird Populations
- 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

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 - 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 Commonwealth. 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 Commonwealth 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 Commonwealth. 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.

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, could seek assistance from other entities, or could take no further action. Only those methods legally available for use by the appropriate individual would be recommend or corresponding equipment loaned by WS. WS would continue to recommend an integrated approach using lethal and non-lethal methods. 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 that are 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 – 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 Massachusetts. All requests for assistance received by WS would be referred to the USFWS, the MDFW, 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 Commonwealth. 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.

However, under this alternative property owners/managers may have difficulty obtaining permits to use lethal damage management methods. The USFWS needs professional recommendations on individual damage situations before issuing a depredation permit for lethal take, and the USFWS does not have the mandate or the resources to conduct wildlife damage management work. Commonwealth agencies with responsibilities for migratory birds would likely have to provide this information to the USFWS if depredation permits are to be issued by the USFWS. If the information were provided to the USFWS, following the agency's review of a complete application package for a depredation permit from a property owner or manager to lethally take geese, the permit issuance procedures would be similar to Alternative 1 and Alternative 2.

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 Implemented Before Lethal Methods
- Use of Non-lethal Methods Only by WS
- Trap and Translocate Geese Only
- Use of Lethal Methods Only by WS
- Reducing Damage by Managing Canada Goose Populations through the Use of Reproductive Inhibitors
- Compensation for Goose Damage

XII. STANDARD OPERATING PROCEDURES

The WS program in Massachusetts 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 Commonwealth under the proposed action alternative (Alternative 1) and when applicable, under the technical assistance alternative (Alternative 2). If the no involvement by WS alternative (Alternative 3) 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 Massachusetts 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 (Alternative 1) 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 MDFW. 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 of Damage Management Activities 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 operationally employ both non-lethal and lethal methods, as governed by federal, Commonwealth, 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 2006 through FY 2010, WS employed non-lethal methods to harass and disperse geese in the Commonwealth 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 through the combination of dispersal of geese, and the number actually removed lethally. 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 Commonwealth. 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 Commonwealth 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 2 and Alternative 3. Those activities proposed, including the proposed take of geese, under Alternative 1 would not be additive to the number of geese that could be taken by other entities under the other alternatives.

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 1) 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 that 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.

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 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 could 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 modify existing habitat or making areas unattractive to geese is discussed in Appendix B of the EA. WS' objective is to respond to a 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 would be to reduce damage and threats to human health and 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 2006, no non-targets are known to have been killed by the WS program 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 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. Although some risks to non-targets do occur from the use of alpha chloralose, those risks are minimal when 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 2 and Alternative 3. 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 2 and Alternative 3 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.

The New England Field Office of the USFWS has developed a website which provides up-to-date species occurrence information and provides an outline for action agencies to assist in determining whether consultation for projects is needed under Section 7 of the ESA. If T&E species are not present in the project area based on review of the website, WS would conclude the project would have "*no effect*" on T&E species based on the absence of those species in the project area; therefore, no further consultation would occur with the USFWS as indicated by the website and pursuant to Section 7 of the ESA. If, after review of the procedures on the website, WS determines T&E species may be present in a project area based on information provided on the website, WS would follow those procedures outlined on the website to conclude with a determination of effects and the need for further consultation pursuant to Section 7. In addition, WS has determined that the proposed WS' activities would have no effect on any species listed as vulnerable or threatened and endangered by the Commonwealth of Massachusetts.

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 Commonwealth 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 health and 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 health and 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 Commonwealth 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 3 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 3. 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 in harvesting 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 MDFW 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 MDFW 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 MDFW. With oversight by the USFWS and the MDFW, 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 MDFW, 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 1 and Alternative 2 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 3. 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 to meet the need for action. I find the proposed action alternative (Alternative 1) to be environmentally acceptable, addressing the issues and needs while balancing the environmental concerns of management agencies, landowners, advocacy groups, and the public. The analyses in the 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 1 (proposed action/no action) and applying the associated standard operating procedures discussed in Chapter 3 of the EA. Alternative 1 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 Commonwealth, 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 1) 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 1) would have a significant impact, individually or cumulatively, on the quality of the human environment. I agree with this conclusion and therefore, find that an EIS should not be prepared. This determination is based on the following factors:

1. Goose damage management as conducted by WS in the Commonwealth would not be 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.

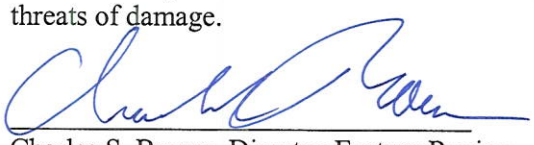
8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.

9. WS would review the USFWS website and the online measures described on the website on a site-by-site basis to determine if any T&E species are located within the project area in order to conclude with a determination of effects. Based on a determination of effects, WS would consult with the USFWS in accordance with the Endangered Species Act, if required. WS has also determined that the proposed activities would have no effect on species listed as threatened or endangered by the Commonwealth.

10. The proposed action would be in compliance with all applicable Federal, Commonwealth, 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 Massachusetts would continue to provide effective and practical technical assistance and direct management techniques that reduce damage and threats of damage.



3/27/12

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

Date

XVI. LITERATURE CITED

Atlantic Flyway Council. 1999. Atlantic Flyway Resident Canada Goose Management Plan. Canada Goose Committee, Atlantic Flyway Technical Section, Laurel, Maryland, USA. 42 pp.

Food and Drug Administration. 2003. Bird poisoning of federally protected birds. Office of Criminal Investigations. Enforcement Story 2003. http://www.fda.gov/ora/about/enf_story/archive/2003/default.htm. Accessed on February 2, 2009.

Mowbray, T.B., Ely, C.R., Sedinger, J.S. & Trost, R.E. 2002. Canada goose (*Branta canadensis*). The birds of North America, Number 682 (ed. by A.Poole and F.Gill), The Academy of Natural Sciences, Philadelphia.

Slate, D.A., R. Owens, G. Connolly, and G. Simmons. 1992. Decision making for wildlife damage management. Trans. N. A. Wildl. Nat. Res. Conf 57:51-62.

USDA. 1997. Animal Damage Control Program: Final Environmental Impact Statement (revised). USDA/APHIS/WS-Operational Support Staff, 4700 River Road, Unit 87, Riverdale, Maryland 20737.

USDA. 2011. Environmental Assessment: Reducing Canada goose damage throughout the Commonwealth of Massachusetts. United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services, Amherst, Massachusetts.

USFWS. 2001. Inside Region 3: Ohio man to pay more than $11,000 for poisoning migratory birds. Volume 4(2):5.

USFWS. 2005. Final Environmental Impact Statement: Resident Canada goose management. United States Fish and Wildlife Service, Division of Migratory Birds. Arlington, Virginia. http://www.fws.gov/migratorybirds/issues/cangeese/finaleis.htm. Accessed November 24, 2009.

White, D.H., L.E. Hayes, and P.B. Bush. 1989. Case histories of wild birds killed intentionally with famphur in Georgia and West Virginia. Journal of Wildlife Diseases 25:144-188.