DECISION

ENVIRONMENTAL ASSESSMENT: REDUCING WATERFOWL DAMAGE IN THE STATE OF ALABAMA

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 and threats to agricultural resources, property, natural resources, and human safety associated with Canada geese (*Branta canadensis*) and free-ranging domestic or feral waterfowl (hereafter, collectively referred to as waterfowl)[1] in Alabama (USDA 2010)[2]. The EA documents the need for waterfowl 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 associated with waterfowl while minimizing impacts to the human environment.

The EA evaluated the issues and alternatives associated with WS' potential participation in managing damage and threats caused by waterfowl in the State. The EA was prepared by WS to determine if the proposed action 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 waterfowl, 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 waterfowl from occurring to four major categories: agricultural resources, natural resources, property, and threats to human safety. WS only conducts waterfowl damage management after receiving a request for assistance. Before initiating waterfowl damage management activities in the State, a Memorandum of Understanding, cooperative service agreement, or other comparable document must be signed between WS and the cooperating entity which lists all the methods the property owner or manager will allow to be used on property they own and/or manage.

Most requests for WS' assistance are associated with suburban areas where waterfowl congregate on public or private ponds and forage on lawns and mowed areas associated with parks, beaches, golf courses, schools, business campuses, and residences. The major problems are associated with the impacts of feces and grazing damage to lawns and other areas (including sidewalks, driveways, and swimming pools). Agricultural losses occur primarily in the late winter and spring and are a result of waterfowl consuming and trampling sprouting crops. The major crops damaged are corn, soybeans, winter wheat, and pastures.

WS' activities would only be conducted when requested by those entities when damage or a threat is occurring to agricultural resources, natural resources, property, or posing a threat to human safety. WS

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[1]For purposes of this document, the term waterfowl will only refer to Canada geese and domestic or feral waterfowl (ducks, geese, and swans), unless otherwise noted in the text.

[2]Copies of the EA are available for review from the State Director, USDA/APHIS/WS, School of Forestry and Wildlife Services, 602 Duncan Drive, Auburn University, AL 36849 or by visiting the APHIS website at http://www.aphis.usda.gov/wildlife_damage/nepa.shtml.

may also be requested to participate in disease surveillance and monitoring in the event of a disease outbreak or potential outbreak in a waterfowl population.

III. RELATIONSHIP OF THE EA TO OTHER ENVIRONMENTAL DOCUMENTS

WS has developed a programmatic Final Environmental Impact Statement (FEIS) that addressed the need for wildlife damage management (USDA 1997). The FEIS contains a detailed discussion of the potential impacts to the human environment from wildlife damage management methods and techniques employed by WS, including methods used to manage damage associated with waterfowl. Pertinent information in the FEIS has been incorporated into the EA and this Decision by reference.

In addition to WS' programmatic FEIS, the United States Fish and Wildlife Service (USFWS), in cooperation with WS, have developed an FEIS for the management of resident Canada geese populations. The FEIS contains detailed analyses of the issues and methods available to manage goose damage associated with resident goose populations. On June 27, 2007, WS issued a Record of Decision as a cooperating agency and adopted the FEIS to support program activities addressing goose damage.

IV. DECISIONS TO BE MADE

Based on the scope of the EA, the decisions to be made are: 1) whether WS should continue to reduce waterfowl damage in Alabama using an integrated approach, 2) should damage to agricultural resources, property, and natural resources and threats to human safety be allowed to continue, 3) what standard operating procedures (SOPs) and mitigation measures should be implement to minimize risks, and 4) would the continuation of the current integrated approach to resolving waterfowl damage as described in the proposed action and within the scope analyzed result in adverse impacts to the environment requiring the preparation of an Environmental Impact Statement (EIS).

V. SCOPE OF ANALYSES OF THE EA

This EA evaluates waterfowl damage management as conducted by WS 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. If the analyses in the EA indicates the preparation of an EIS is not warranted and a Finding of No Significant Impact (FONSI) is signed by the decision-maker for the EA, the analyses in the EA would remain valid until WS determines that new needs for action, changed conditions, new issues, or new alternatives having different potential environmental impacts must be analyzed. The analyses in the EA are intended to apply to any action taken by WS to alleviate waterfowl damage that may occur *in any locale* and at *any time* within Alabama.

The pre-decisional EA[3] was made available to the public for review and comment by a legal notice published for three consecutive days in the *Montgomery Advertiser* newspaper beginning on February 9, 2010. A notice of availability and the pre-decisional 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 February 2, 2010. A letter of availability was also mailed directly to agencies, organizations, and individuals with probable interest in waterfowl damage management in the State. The public involvement process ended on March 19, 2010. No comments were received during the public involvement period.

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[3]Before a Decision for the EA is issued, the EA is considered pre-decisional. After the development of the EA by WS and consulting agencies and after public involvement in identifying new issues and alternatives, WS issues a Decision. Based on the analysis in the EA after public involvement, a decision is made to either publish a Notice of Intent to prepare an Environmental Impact Statement or a Finding of No Significant Impact statement will be signed and noticed to the public in accordance to the NEPA, the Council of Environmental Quality regulations, and APHIS' NEPA implementation regulations.

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 migratory birds, including Canada geese, is the responsibility of the USFWS. As the authority for the management of Canada goose populations in the State, the USFWS was involved in the development of the EA and provided input throughout the EA preparation process to ensure an interdisciplinary approach according to the National Environmental Policy Act (NEPA) and agency mandates, policies, and regulations. The Alabama Department of Conservation and Natural Resources (ADCNR) is responsible for managing wildlife in the State of Alabama, including Canada geese. The ADCNR establishes and enforces regulated hunting seasons in the State based on frameworks established by the USFWS pursuant to the Migratory Bird Treaty Act, including a season that allows for the take of Canada geese. Information from the USFWS and the ADCNR has been provided to WS to assist in the analysis of potential impacts of WS' proposed activities on the Canada goose population in the State.

The USFWS has instituted depredation orders for resident Canada geese that allow goose damage or threats of damage to be addressed when the criteria of those depredation orders are satisfied without the need for a depredation permit from the USFWS. Under 50 CFR 21.49, resident Canada geese can be taken at airports and military airfields when those geese are posing a threat of being struck by aircraft. In addition, the nests and eggs of resident Canada geese can be destroyed without the need for a depredation permit when the adult geese are causing damage or posing threats under 50 CFR 21.50 once participants are registered with the USFWS. A depredation order was also created to allow for the take of resident geese that are causing damage or posing threats to agricultural resources in accordance with 50 CFR 21.51.

Feral or free-ranging waterfowl are considered non-native species and are afforded no protection under the Migratory Bird Treaty Act. Therefore, a depredation permit is not required to lethally take feral or free-ranging waterfowl from the USFWS. Exceptions are Muscovy ducks that are native to South America, Central American, and Mexico with a small naturally occurring population in southern Texas. Muscovy ducks have also been domesticated and have been sold and kept for food and as pets in the United States. In many States, Muscovy ducks have been released or escaped captivity and have formed feral populations, especially in urban areas, that are non-migratory. Since the development of the EA, the USFWS has issued a Final Rule on the status of the Muscovy duck in the United States (75 FR 9316-9322). Since naturally occurring populations of Muscovy ducks are known to inhabit parts of south Texas, the USFWS has included the Muscovy duck in the list of bird species afforded protection under the Migratory Bird Treaty Act under 50 CFR 10.13 (75 FR 9316-9322). To address damage and threats of damage associated with Muscovy ducks, the USFWS has also established a depredation order for Muscovy ducks under 50 CFR 21.54 (75 FR 9316-9322). Under 50 CFR 21.54, Muscovy ducks, and their nests and eggs, may be removed or destroyed without a depredation permit from the USFWS at any time in the United States, except in Hidalgo, Starr, and Zapata Counties in Texas.

The EA and this Decision ensures WS' actions comply with the NEPA, with the Council on Environmental Quality (40 CFR 1500), and with APHIS' NEPA implementing regulations (7 CFR 372). All waterfowl damage management activities, including disposal requirements, are conducted consistent with: 1) the Endangered Species Act of 1973, 2) the Migratory Bird Treaty Act, 3) Executive Order (EO) 12898[4], 4) EO 13045[5], 5) EO 13186[6], 6) EO 13112[7], 7) the Federal Insecticide, Fungicide, and

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[4] Executive Order 12898 promotes the fair treatment of people of all races, income levels, and cultures with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

[5] Executive Order 13045 ensures the protection of children from environmental health and safety risks since children may suffer disproportionately from those risks.

Rodenticide Act (FIFRA), and 7) applicable federal, state, and local laws, regulations and policies, including WS' Directives.

VII. AFFECTED ENVIRONMENT

Upon receiving a request for assistance, waterfowl damage management activities could be conducted on federal, State, tribal, municipal, and private properties in Alabama. The areas of the proposed action include, but are not limited to, property on or adjacent to airports, golf courses, athletic fields, recreational areas, swimming beaches, parks, corporate complexes, subdivisions, businesses, industrial parks, schools, agricultural areas, wetlands, restoration sites, and cemeteries. The proposed action may be conducted on properties held in private, local, State, or federal ownership throughout Alabama. Waterfowl damage management would be conducted when requested by a landowner or manager and only on properties where a cooperative service agreement or other comparable document has been signed between WS and the cooperating entity.

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 waterfowl damage management in Alabama were defined and preliminary alternatives were identified through consultation with the USFWS and with the ADCNR. Issues related to managing the resident Canada goose population were also identified and addressed in the resident Canada goose management FEIS developed by the USFWS (USFWS 2005) which were considered during the development of the EA. The pre-decisional 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 2010). 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 Target Waterfowl Populations
- Issue 2 - Effectiveness of Waterfowl 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 Target Waterfowl
- Issue 6 - Effects of Management Methods on Human Health and Safety
- Issue 7 - Effects on the Regulated Harvest of Waterfowl

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:

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[6] Executive Order 13186 directs federal agencies to protect migratory birds and strengthen migratory bird conservation by identifying and implementing strategies that promote conservation and minimize the take of migratory birds through enhanced collaboration. A national-level MOU between the USFWS and WS is being developed to facilitate the implementation of Executive Order 13186.

[7] Executive Order 13112 states that each Federal agency whose actions may affect the status of invasive species shall, to the extent practicable and permitted by law; 1) reduce invasion of exotic species and the associated damages, 2) monitor invasive species populations, provide for restoration of native species and habitats, 3) conduct research on invasive species and develop technologies to prevent introduction, and 4) provide for environmentally sound control, promote public education on invasive species.

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

X. DESCRIPTION OF THE ALTERNATIVES

The following three alternatives were developed to respond to the issues identified in Chapter 2 of the EA (USDA 2010). A detailed discussion of the effects of the alternatives on the issues is described in the EA under Chapter 4; below is a summary of the alternatives.

Alternative 1 – No Waterfowl Damage Management Conducted by WS

Under the no involvement alternative, WS would not be involved with any aspect of waterfowl damage management activities in Alabama. All requests for assistance received by WS would be referred to the USFWS, the ADCNR, and/or other entities. The take of waterfowl could continue to occur under this alternative when damage or threats were occurring in accordance with the depredation orders established for Canada geese. Canada geese could also be harvested during the regulated hunting season in the State. Geese could also be taken through the issuance of depredation permits by the USFWS. Most of the methods described in Appendix B of the EA under this alternative to alleviate waterfowl damage and threats would be available under any of the alternatives. The only method that would not be available to manage damage caused by waterfowl under this alternative would be the immobilizing drug alpha chloralose.

Feral and free-ranging waterfowl could be taken at any time when those species are causing damage or posing a risk to human safety under this alternative. No depredation permit is required to lethally take feral or free-ranging ducks.

Alternative 2 - Waterfowl 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 waterfowl 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 waterfowl would be place on those persons experiencing damage. Those persons could employ those methods recommended by WS, could employ other methods, or could take no action.

Canada geese could still be lethally taken to alleviate damage under this alternative when committing or about to commit damage or posing a human safety threat in accordance with the depredation orders. Geese could also be lethally taken under the regulated hunting season in the State and pursuant to depredation permits issued by the USFWS. Similar to Alternative 1, alpha chloralose would not be

available under this alternative to those persons experiencing waterfowl damage. All other methods described in Appendix B of the EA would be available to those persons experiencing damage.

Alternative 3 - Continuing the Current Integrated Approach to Managing Waterfowl Damage (Proposed Action/No Action)

The proposed action would continue the current program of employing an integrated damage management approach using methods, as appropriate, to reduce damage associated with waterfowl in the State. An integrated damage management strategy would be recommended and used, encompassing the use of practical and effective methods of preventing or reducing damage while minimizing harmful effects of damage management measures on people, other species, and the environment. Non-lethal methods would be given first consideration in the formulation of each damage management strategy, and would be recommended or implemented when practical and effective before recommending or implementing lethal methods. However, non-lethal methods would not always be applied as a first response to each damage problem. The most appropriate response could often be a combination of non-lethal and lethal methods, or there could be instances where application of lethal methods alone would be the most appropriate strategy.

All methods addressed in Appendix B of the EA could be employed by WS to resolve requests for assistance to manage damage associated with waterfowl 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 Canada geese and feral or free-ranging waterfowl.

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 in the EA (USDA 2010). The alternatives analyzed but not in detail include:

- Non-lethal Methods Implemented Before Lethal Methods
- Use of Lethal Methods Only
- Use of Non-lethal Methods Only
- Trap and Relocate Only
- Use of Non-lethal Methods Only
- Reducing Damage by Managing Waterfowl Populations through the Use of Reproductive Inhibitors

XII. MINIMIZATION MEASURES AND STANDARD OPERATING PROCEDURES

Minimization measures are any features of an action that serves to prevent, reduce, or compensate for impacts that otherwise might result from that action. The current WS program, nationwide and in Alabama, uses many such minimization measures and standard operating procedures. Minimization measures and standard operating procedures are discussed in detail in Chapter 5 of WS' programmatic FEIS (USDA 1997) and in Chapter 3 of the EA (USDA 2010). Those minimization measures and standard operating procedures would be incorporated into activities conducted by WS when addressing waterfowl damage and threats in Alabama.

XIII. ENVIRONMENTAL CONSEQUENCES FOR ISSUES ANALYZED IN DETAIL

The EA analyzes the environmental consequences of each alternative as that 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 Alabama 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 proposed 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 ADCNR. 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 Target Waterfowl Populations

In 1998, the resident goose population in the State was estimated at 9,000 geese. In 2008, the resident goose population was estimated at 30,700 geese in the State (Mississippi Flyway Council 2008). Therefore, the resident Canada goose population estimate in the State has increased over 241% since 1998. As reported by the North American Breeding Bird Survey, resident breeding populations of Canada geese in Alabama have increased 31.0% per year from 1966 through 2007 (Sauer et al. 2008). The population management goal for resident Canada geese in Alabama is 25,000 geese (USFWS 2005). The population estimate for resident Canada geese in Alabama for 2008 was 30,700 geese (Mississippi Flyway Council 2008) which exceeds the management goal by nearly 23%. The number of free-ranging or feral waterfowl present in the State is unknown.

Waterfowl that could be taken by WS under the proposed action could be taken by those persons experiencing damage or threats in the absence of WS' direct involvement since the take of resident Canada geese can occur under the depredation orders when found committing or about to commit damage or posing a threat to human safety without the need for a depredation permit from the USFWS. Geese can also be taken during the annual regulated hunting season in the State. Take can also occur pursuant to depredation permits issued by the USFWS to alleviate damage or threat without WS' direct involvement. Feral or freeing ranging waterfowl can be taken at any time when causing damage or posing threats with no depredation permit from the USFWS required.

Since the lack of WS' direct involvement does not preclude the taking of waterfowl by those persons experiencing damage or threats, WS' involvement in the taking of those waterfowl under the proposed action would not be additive to the number of waterfowl that could be taken by other entities in the absence of WS' involvement. In addition, most non-lethal and lethal methods available for resolving damage or threats associated with waterfowl 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. 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.

Canada geese can be taken in Alabama during annual hunting seasons that are regulated by the ADCNR under frameworks issued by the USFWS pursuant to the Migratory Bird Treaty Act. During the September hunting season in 2007, an estimated 8,000 geese were harvested statewide (Raftovich et al. 2009). In 2008, the USFWS currently estimates that no geese were harvested in the State despite

implementation of the September season by the ADCNR (Raftovich et al. 2009). During the regular waterfowl season, an estimated 10,700 geese were harvested in the State in 2007 compared to 9,400 geese harvested in the 2008 (Raftovich et al. 2009). The USFWS estimates no geese were harvested in the State during the late goose season in 2007 and 2008 (Raftovich et al. 2009).

Under the proposed action, based on a review of previous activities conducted by WS to alleviate waterfowl damage and in anticipation of an increase in requests for lethal take, WS anticipates that future lethal take will not exceed 1,500 resident Canada geese annually in the State and up to 200 goose nests to alleviate damage and threats. Based on an increase in the number of requests received for the lethal take of geese during those periods of time when geese present in the State could be considered migratory, WS may take up to 100 geese could be considered migratory geese based on the time of year those geese are present in the State. Distinguishing a resident Canada goose that is present in the State throughout the year and a Canada goose that migrates into the State is difficult under field conditions. Based on the review of the literature in the EA, most geese present in Alabama are likely resident geese which are present in the State throughout the year. Those geese taken by WS during those months when geese could be considered migratory will be considered migrant geese for analyses purposes. In addition, WS could annually take up to 300 free ranging or feral waterfowl to alleviate damage or threats under the proposed action alternative.

Nest and egg destruction methods are considered non-lethal when conducted before the development of an embryo. Additionally, geese are a long lived species and have the ability to identify areas with regular human disturbance and low reproductive success which causes them to relocate and nest elsewhere when confronted with repeated nest failure. Although there may be reduced fecundity for the individuals affected, this activity has no long term effect on breeding adult geese. Nest and egg removal is not used by WS as a population management method. This method is used by WS to inhibit nesting in an area experiencing damage due to the nesting activity and is employed only at the localized level. The resident Canada goose management FEIS developed by the USFWS concluded that a nest and egg depredation order would have minimal impacts on goose populations with only localized reductions in the number of geese occurring (USFWS 2005).

In 2008, the resident goose population in the State was estimated at 30,700 geese (Mississippi Flyway Council 2008) which exceeds the statewide population goal of 25,000 resident geese (USFWS 2005) by 23%. If up to 1,500 resident geese were lethally taken by WS in 2008, WS' take would have represented 4.9% of the estimated statewide resident population. If the resident goose population in the State remains at least stable, WS' take of resident geese would not exceed 4.9% of the resident population of geese. However, the resident goose population in the State has increased 2% on average per year since 2004. If the resident goose population in the State is maintained at the statewide population goal of 25,000 geese, WS' take of up to 1,500 would represent 6% of the resident goose population in the State. Since 2004, hunters have harvested an average of 6,540 geese in the State during the September hunting season which is intended to target resident geese. The number of resident geese harvested during the regular goose season in the State is unknown but likely constitutes some portion of the harvest since few resident geese migrate out of the State. Despite WS' take and the take of geese during the hunting seasons in the State, the resident Canada goose population continues to increase annually in the State which indicates the take by WS and the take of geese during the September hunting season is not having an adverse impact on resident goose populations.

Currently, two distinct population segments of Canada geese can be found in Alabama during those months when geese could be considered migrant geese. Distinct population segments are delineated based on their respective breeding ranges. The two population segments of geese that could be present in the State during those months when geese could be considered migrant include the Mississippi Flyway Giant Population (MFGP) and the Southern James Bay Population (SJBP). Under field conditions,

distinguishing geese between population segments can be difficult. Determining whether a Canada goose present in the State is migratory or a resident (present in the State year round) can also be difficult under field conditions. Therefore, for the purposes of this analyses, those Canada geese present in the State from September through March will be considered as migratory geese. In 2009, the MFGP was estimated at 1,906,600 geese which was a 1% increase when compared to the 2008 estimate and was the second highest population estimate of the MFGP of geese on record (USFWS 2009). Resident geese that are present in the State during the breeding season are considered part of the MFGP. The SJBP indices for breeding geese have increased an average of 1% per year since 2000 (USFWS 2009). The total spring population of the SJBP of geese was estimated at 77,500 (± 23,900) which was 30% fewer geese compared to the 2008 spring population estimate (USFWS 2009). The number of geese present in the State from the MFGP and the SJBP during the migration period is unknown.

Geese can be harvested during a regular hunting season in the State during those months when geese present in the State could be considered migrant. Therefore, geese harvested in the State during the regular season represent geese from the MFGP or the SJBP. The number of geese from each population segment during the regular season in unknown. WS' take of up to 100 geese that could be considered migratory annually would have represented 0.5% of the number of geese harvested in the State during the 2007 harvest season and 1.1% of the number of geese harvested in the State during the 2008 hunting season. The magnitude of an annual take of up to 1.1% of the number of geese harvested in the State could be considered low. No take of migratory geese will occur by WS without a depredation permit issued by the USFWS. Therefore, WS' take will only occur at the discretion of the USFWS after population objectives for geese are considered.

No population estimates are available for the number of feral or free-ranging waterfowl that are present in the State at any given time. Feral waterfowl and free-ranging waterfowl are considered non-native species in the State. The removal of free-ranging domestic or feral waterfowl by WS will be in compliance with Executive Order 13112 which states that each Federal agency whose actions may affect the status of invasive species shall, to the extent practicable and permitted by law; 1) reduce invasion of exotic species and the associated damages, 2) monitor invasive species populations, provide for restoration of native species and habitats, 3) conduct research on invasive species and develop technologies to prevent introduction, and 4) provide for environmentally sound control and promote public education on invasive species. Therefore, WS' take of up to 300 feral or free-ranging waterfowl to alleviate damage will not adversely affect populations in the State given the likely low magnitude of take occurring. Those activities will likely benefit the native environment by reducing competition between feral or free-ranging waterfowl and native waterfowl species.

Issue 2 - Effectiveness of Waterfowl Damage Management Methods

A common issue when addressing wildlife damage is the effectiveness of the methods being employed to resolve the damage. When those persons experiencing wildlife damage request assistance, the damage occurring has likely reached or will reach an economic threshold that is unacceptable to those persons requesting assistance. Therefore, methods being employed to resolve damage must be effective at resolving damage or threats within a reasonable amount of time to prevent further economic loss.

The methods available to those experiencing damage would be similar to those methods that would be available under all of the alternatives. The only method that would not be available under all of the alternatives would be the use of alpha chloralose which is restricted to use by WS only. The effectiveness of methods under the alternatives would be similar since the same methods would be available, except for alpha chloralose. If methods are employed as intended and with regard to the behavior of the waterfowl species causing damage, those methods are likely to be effective in resolving damage. The demonstration of methods and the information provided on waterfowl behavior provided by WS through technical

assistance (Alternative 2) would likely increase the effectiveness of the methods employed by those requesting assistance when compared to the no involvement alternative (Alternative 1). However, if methods are employed that are not recommended or if those methods are employed incorrectly by those requesting assistance, methods could be less effective in resolving damage or threats under any of the alternatives. Under Alternative 3 (proposed action/no action alternative), WS could provide direct operational assistance which ensures those methods available are employed correctly and are effective in resolving damage based on the training received in the use of those methods and the knowledge in waterfowl behavior necessary to properly address damage or threats.

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 2004, no non-targets are known to have been killed by WS during waterfowl damage management activities conducted by WS using an integrated approach. Methods available to address waterfowl damage would be similar across all the alternatives. Therefore, risks to non-targets from the use of those methods would be similar across alternatives. The only method available under the proposed action that would not be available under any of the other alternatives would be alpha chloralose. Although some risks do occur from the use of alpha chloralose, those risks are minimal when used according to WS Directive 2.430 and in accordance with alpha-chloralose use guidelines. Based on information in the EA, the use patterns of alpha-chloralose would not pose increased risks to non-targets when use the immobilizing drug to capture waterfowl.

Under the no WS involvement alternative, WS would not be directly involved with any aspect of waterfowl 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 waterfowl 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 adversely affect non-target species, including T&E species. If requestors are provided technical assistance but do not implement any of the recommended actions, the potential impacts to non-targets would be lower compared to the proposed action. If those 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 potential impacts 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.

The ability to reduce negative impacts caused by waterfowl 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 waterfowl behavior, risks to non-target wildlife would be higher under any of the alternative. If frustration from the lack of available assistance causes those persons experiencing waterfowl damage to use methods that are not legally available for use, risks to non-targets would be higher under the 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, FDA 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 will be unaffected by damage management activities.

Based on a review of the threatened and endangered (T&E) species federally-listed in the State, WS has determined that the proposed action alternative would not adversely affect those species listed in the State or their critical habitats that were addressed in the Biological Opinion issued by the USFWS on WS' programmatic activities (USDA 1997). WS will abide by all reasonable and prudent measures identified in the Biological Opinion for the gray wolf (*Canis lupus*) and the eastern indigo snake (*Drymarchon corais couperi*). In addition, WS has determined that the use of waterfowl damage management methods will have no effect on those T&E species not included in the Biological Opinion or their critical habitats that are currently listed in the State. Furthermore, WS has determined that the use of nicarbazin, alpha-chloralose, and lasers will have no effect on any listed T&E species or their critical habitats listed in the State.

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. Alpha chloralose is generally regarded as a non-lethal method since the ingestion of treated baits is used to sedate waterfowl with a full recovery occurring. The ability of WS to provide direct operational assistance under the proposed action alternative would insure 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 waterfowl behavior. However, most methods, when used as intended, would be considered humane and when attended to appropriately, would not increase distress of waterfowl.

Issue 5 - Effects on the Aesthetic Values of Target Waterfowl

Waterfowl often provide aesthetic enjoyment to many people in Alabama 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 waterfowl from the area where damage is occurring or the dispersal of waterfowl 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 waterfowl. However, even under the proposed action alternative, the dispersal and/or take of waterfowl under the alternatives will not reach a magnitude that would prevent the ability to view waterfowl outside of the area where damage was occurring. The effects on the aesthetic values of waterfowl 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 the available across the alternatives. However, the expertise of WS' employees in using those methods available likely will 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. The EA determined that the availability of alpha chloralose under the proposed action would not increase risks to human safety from the use of the method under the alternative. Although risks do occur from the use of alpha chloralose, when used in consideration of human safety, the use of alpha chloralose does not pose additional risks to human safety beyond those associated with the use of other methods.

Issue 7 - Effects on the Regulated Harvest of Waterfowl

Another common concern is the potential effects of damage management activities on the ability to harvest target species during the regulated hunting season in the State. Methods are intended to disperse or remove target species from an area where damage is occurring which could reduce the opportunities to harvest waterfowl during the regulated harvest season. Domestic or feral waterfowl can be taken in the State at any time with no established hunting season. Canada geese can be harvested in the State during an early September season, the regular waterfowl season, and a late season.

The magnitude of take addressed in the proposed action would be low when compared to the mortality of waterfowl from all known sources. When WS' proposed take of waterfowl was included as part of the known mortality of waterfowl and compared to the estimated population, the impact on those species' populations was below the level of removal required to lower population levels.

With oversight of Canada goose populations by the USFWS, the number of geese allowed to be taken by WS will not limit the ability of those interested to harvest geese during the regulated season. All take by WS will be reported to the USFWS annually to ensure take by WS is incorporated into population management objectives established for Canada goose populations. Based on the limited take proposed by WS and the oversight by the USFWS, WS' take of Canada geese annually will have no effect on the ability of those interested to harvest geese during the regulated harvest seasons.

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 waterfowl by WS would not have significant impacts on statewide waterfowl populations when known sources of mortality are considered. No risk to public safety is expected when activities are provided and expected by requesting individuals in Alternative 2 and Alternative 3 since only trained and experienced personnel would conduct and 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, and when no assistance is provided under Alternative 1. Under all of the Alternatives, however, it would not be to the point that the impacts would be significant. The analysis in this EA indicates that an integrated approach to management damage and threats caused by waterfowl will 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 this proposal and the input from the public involvement process. I find the proposed program 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 mitigation measures discussed in Chapter 3 of the EA. Alternative 3 successfully addresses (1) waterfowl damage management using a combination of the most effective methods and does not adversely impact the environment, property, human 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 waterfowl 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 (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) will 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. Waterfowl 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).

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. Built-in mitigation measures that are part of WS' standard operating procedures and adherence to applicable laws and regulations will 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 waterfowl damage management, this action is not highly controversial in terms of size, nature, or effect.

5. Based on the analysis documented in the EA and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks.

6. The proposed action would not establish a precedent for any future action with significant effects.

7. No significant cumulative effects were identified through the assessment. The EA analyzed cumulative effects on target and non-target species populations and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within Alabama.

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.

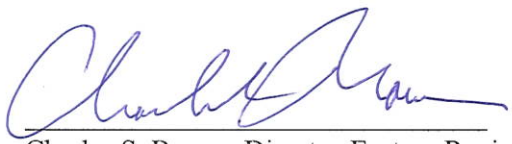
9. WS has determined that the proposed program would not adversely affect any federal or State listed threatened or endangered species based on the Biological Opinion issued by the USFWS on WS' programmatic activities. In addition, the WS program has determined the activities proposed would have no effect on species that are currently listed in the State but were not addressed in the Biological Opinion issued by the USFWS. WS has also concluded that the use of alpha chloralose, lasers, and nicarbazin will have no effect on any T&E species listed in the State.

10. The proposed action would be in compliance with all applicable federal, State, and local laws.

11. No significant cumulative effects were identified by this assessment or other actions implemented or planned within the area.

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) waterfowl damage management will 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 Alabama will continue to provide effective and practical technical assistance and direct management techniques that reduce damage.



4/7/10

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

Date

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