

**ADOPTION AND FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
CANADA GEESE DAMAGE MANAGEMENT IN MISSISSIPPI**

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Mississippi’s Wildlife Services (WS) program, in cooperation with the Tennessee Valley Authority (TVA) conducts programs to resolve or prevent damage to agricultural resources, natural resources, and property, including threats to human safety, associated with Canada geese, referred to as geese in this document. The Tennessee Valley Authority (TVA) continues to experience damage or threats of damage associated with Canada geese at facilities or properties they own in Mississippi and may request the assistance of WS to manage the damage or threats of damage at these properties.

WS prepared an Environmental Assessment (EA) to evaluate the cumulative effects of WS’ actions conducted to manage damage and threats to agricultural resources, property, natural resources, and people caused by Canada geese. The current EA (*Managing Damage Cause by Canada Geese in the State of Mississippi*) finalized in 2016, evaluated previous and anticipated future actions taken by WS to determine if those cumulative actions had a significant impact on the human environment. WS and TVA previously developed an EA that analyzed the need for action to manage damage associated with Canada geese in the State. However, this EA addresses the current need for action and the associated affected environment, and therefore, the analysis in the 2016 EA supersede the previous EA. TVA has independently reviewed the WS EA, provided comments on the document, and found it to be adequate. Therefore, TVA is adopting the new WS EA.

Affected Environment

Canada geese occur throughout the year across the State of Mississippi where suitable habitat exists for foraging, loafing, roosting, and breeding. Geese are capable of utilizing a variety of habitats in the State, but generally prefer wetlands, ponds, meadows, gravel bars long rivers, islands, agricultural fields, along irrigation ditches, reservoirs, sewage lagoons, city lakes, golf courses, subdivisions, highway medians, and on top of city buildings. Requests for assistance to manage damage or threats of damage could occur in these areas.

Alternatives

The 2016 WS EA evaluated the potential environmental consequences under three alternatives. Alternative 1 would continue implementation of an adaptive methods approach utilizing non-lethal and lethal techniques, when requested, as deemed appropriate using the WS Decision Model, to reduce damage and threats caused by Canada geese in Mississippi. Alternative 2 would limit WS’s involvement to providing recommendations on methods that people could use to manage damage without any direct involvement by WS. Under Alternative 3, the WS program in Mississippi would not provide any assistance with managing damage associated with geese in the State.

Impacts Assessment

WS and TVA developed six issues related to managing damage associated with geese in Mississippi. Each of the issues is discussed in the EA, as those issues relate to the possible implementation and environmental consequences of the three alternatives.

- Issue 1 - Effects of damage management activities on target Canada goose populations;
- Issue 2 - Effects on non-target wildlife species populations, including threatened and endangered species;

- Issue 3 - Effects of damage management methods on human health and safety;
- Issue 4 - Effects on the aesthetic values of Canada geese;
- Issue 5 - Humaneness and animal welfare concerns of methods.

Issue 1 – Effect of Damage Management Activities on Target Canada Goose Populations

WS personnel could employ non-lethal and/or lethal methods to resolve a request for assistance. Non-lethal methods consist of capturing, dispersing, excluding, or making an area unattractive to Canada geese causing damage. Lethal methods can remove specific Canada geese that personnel of WS identify as causing damage or posing a threat to human safety. The number of geese removed from the population by WS would be dependent on the number of requests for assistance received, the number of geese involved with the associated damage or threat, the efficacy of methods employed, and the number of individual geese the agencies authorize WS to remove. Those people experiencing damage or threats of damage could remove geese themselves under any of the alternatives. Neither of the methods would adversely affect the populations of the target species under any of the alternatives.

Issue 2 - Effects on Non-Target Wildlife Species Populations, Including Threatened and Endangered Species

To reduce the likelihood of dispersing, capturing, or removing non-target animals, WS would employ the use of attractants that were as specific to the targeted species as possible. WS would use standard operating procedures to reduce any potential adverse effects on non-target animals. These methods are “*not likely to adversely affect*” threatened or endangered species or their designated critical habitats in the State. USFWS concurred with the effects determination made by WS during consultation. This applies to all alternatives.

Issue 3 - Effects of Damage Management Methods on Human Health and Safety

WS’ employees would consider risks to human safety when conducting available methods of managing damage caused by Canada geese. The type of wildlife species responsible for causing damage or threats and WS’ directives would also be considered. The threats to human safety from the use of methods would be similar across the alternatives.

Issue 4 - Effects on the Aesthetic Values of Canada Geese

Canada geese may provide aesthetic enjoyment to some people in the State, such as through observations, photographing, and knowing they exist as part of the natural environment. Methods available WS could use under each alternative could result in the dispersal, exclusion, live-capture, or lethal removal of individuals or small groups of Canada geese to resolve damage and threats. However, these methods would not reach a magnitude that would prevent ability to view Canada geese outside the area where damage was occurring. The effects on the aesthetic values of Canada geese would be minimal across the alternatives.

Issue 5 - Humaneness and Animal Welfare Concerns of Methods

The EA also analyzed the issue of humaneness and animal welfare concerns in relationship to methods available under each of the alternatives. The ability of WS to provide direct operational assistance under Alternative 1 would ensure WS’ personnel employed methods as humanely as possible. Under the other alternatives, other entities could use methods inhumanely if used inappropriately or without consideration of target animal behavior. However, the skill and knowledge of the person implementing methods to resolve damage would determine the efficacy and humaneness of methods.

Cumulative Impacts of the Proposed Action

No significant cumulative environmental impacts are expected from any of the three alternatives, including TVA and WS’s preferred alternative (Alternative 1). The analysis in the EA adequately

addressed the identified issues, which reasonably confirmed that an integrated methods approach would not result in significant cumulative adverse effects on the quality of the human environment.

Alternative 1 successfully addressed (1) managing damage using a combination of the most effective methods that do not adversely impact the environment, property, human health and safety, target species, and/or non-target species, including threatened or endangered species; (2) it offers the greatest chance of maximizing effectiveness and benefits to resource owners and managers; (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, animal welfare, and aesthetics when all facets of those issues are considered.

The preferred alternative contemplates that, for any request for assistance, WS will apply the Decision Model which assesses the problem, evaluates management methods available, and then formulates a management strategy and continues to monitor that strategy. Any decision made using the Decision Model would be in accordance with WS' directives and standard operating procedures as well as relevant laws and regulations. The WS EA states, "The monitoring of activities by WS would ensure the EA remained appropriate to the scope of activities conducted by WS in Mississippi and damage management activities that WS could conduct on property owned or managed by the TVA under the selected alternative."

Public Involvement

WS made the EA available to the public for review and comment in a legal notice published in the *Clarion Ledger* newspaper from October 9, 2015 through November 1, 2015. WS made the EA available to the public for review and comment on the APHIS website beginning on October 19, 2015. WS also sent a notice of availability to agencies, organizations, and individuals with probaly interest in managing Canada goose damage in the State. The public involvement process ended on December 11, 2015. During the public comment period, WS received two comment responses on the draft EA resulting in minor changes, but did not change the analysis provided in the EA. A finding of no significant impact (FONSI) was signed by USDA/APHIS/WS Eastern Region Director, Charles S. Brown, on January 11, 2016.

Conclusion and Findings

Due to TVA's involvement with WS concerning Canada goose damage control and management in Mississippi, TVA has independently reviewed the WS EA, provided comments on the document, and found it to be adequate. Based on the analyses in the EA and the findings documented above, TVA concludes that contracting with WS for Canada goose damage management services on TVA facilities and properties in Mississippi as described under Alternative 1 above would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required. If needed, TVA may request the assistance of WS to manage damage or threats of damage at those facilities and properties as assessed under the 2016 Managing Damage Caused by Canada Geese in the State of Mississippi Environmental Assessment.



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Date Signed