

ADOPTION AND FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY AQUATIC RODENT DAMAGE MANAGEMENT IN MISSISSIPPI

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program, in cooperation with the Tennessee Valley Authority (TVA) in Mississippi conducts programs to resolve or prevent damage to agricultural resources, natural resources, and property, including threats to human safety, associated with beaver (*Castor canadensis*), muskrats (*Ondatra zibethicus*), and nutria (*Myocastor coypus*), referred to as aquatic rodents in this document. The Tennessee Valley Authority (TVA) continues to experience damage or threats of damage associated with aquatic rodents 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 previously 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 these aquatic rodent species. In 2015, WS, in cooperation with TVA and Mississippi Department of Wildlife Fishers, and Parks (MDWFP), finalized the Aquatic Rodent Damage Management in Mississippi EA, which helped to facilitate planning, promote interagency coordination, streamline program management, clearly communicate to the public the analysis of individual and cumulative impacts of proposed activities, and determine if those cumulative actions had a significant impact on the human environment. TVA has independently reviewed the WS EA, provided comments on the document, and found it to be adequate. TVA is therefore adopting the WS EA.

Alternatives

The 2015 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 aquatic rodents in Mississippi. Alternative 2 would provide cooperators experiencing damage or threats associated with aquatic rodents with information, demonstrations, and recommendations on available and appropriate methods only. Under Alternative 3, the WS program in Mississippi would not provide any assistance with managing damage associated with aquatic rodents in the State.

Impacts Assessment

In cooperation with TVA, WS developed six issues related to managing damage associated with aquatic rodents 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 Aquatic Rodent 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 aquatic rodents causing damage. Lethal methods can remove specific aquatic rodents that personnel of WS identify as causing damage or posing a threat to human safety. Neither method 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 cause by aquatic rodents. 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 Aquatic Rodents

Aquatic rodents 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 aquatic rodents to resolve damage and threats. However, these methods would not reach a magnitude that would prevent ability to view aquatic rodents outside the area where damage was occurring. The aesthetic values of aquatic rodents 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.

Issue 6 - Effects of Damage Management Activities on the Regulated Harvest of Aquatic Rodents

Beavers and nutria are considered “nuisance animals” in Mississippi and landowners, leaseholders, or their designated agents can lethally remove them throughout the year on lands they own or lease. The magnitude of lethal removal under Alternative 1 would be low compared to the mortality of the aquatic rodent species from all known sources. WS would only provide technical assistance under Alternative 2 and no assistance under Alternative 3. The State would continue to regulate populations of aquatic rodent populations through the regulated harvest season and permits to manage damage or threats of damage.

Issue 7 - Effects of Beaver Removal and Dam Manipulation on the Status of Wetlands in the State

When receiving a request for assistance to manage damage associated with beaver, WS could also receive requests to remove or manipulate beaver dams to alleviate flooding. Under Alternative 1, WS could manipulate water levels associated with water impoundments caused by beaver dams using either dam breaching, dam removal, or the installation of water flow devices, including exclusion devices. If wetland conditions were present at the site, WS’ employees would notify the entities requesting assistance from WS that a permit under section 404 of the Clean Water Act (CWA) might be required to remove/breach the dam. WS would recommend the property owner or manager seek guidance from the MDWFP and the United States Army Corps of Engineers pursuant to Mississippi State Law and CWA.

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 by a legal notice published in the *Clarion Ledger* newspaper from March 16, 2015 through March 18, 2015. WS made the EA available to the public for review and comment on the APHIS website beginning March 10, 2015 and on the regulations.gov website beginning on August 16, 2016. WS also sent a notice of availability directly to agencies, organizations, and individuals with probable interest in managing aquatic rodent damage in the State. The public involvement process ended on April 24, 2015. During the public comment period, WS did not receive comment letters during the public comment period. A finding of no significant impact (FONSI) was signed by USDA/APHIS/WS director on July 1, 2015.

Conclusion and Findings

Due to TVA's involvement with WS concerning aquatic rodent damage control and management in Mississippi, TVA independently reviewed the current WS EA 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 aquatic rodent 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 2015 Aquatic Rodent Damage Management in Mississippi Environmental Assessment.



10/02/2019

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Date