

**DECISION
AND
FINDING OF NO SIGNIFICANT IMPACT**

**ENVIRONMENTAL ASSESSMENT: MAMMAL DAMAGE
MANAGEMENT IN THE STATE OF VERMONT**

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program completed an Environmental Assessment (EA) on alternatives for reducing mammal damage to agricultural resources, natural resources, property, and public health and safety in Vermont (USDA 2018). The cooperating agencies that assisted WS in the development of the EA were the Vermont Fish and Wildlife Department (VFWD), the Vermont Agency of Agriculture Food and Markets, the Vermont Department of Health, the USDA Forest Service, and the United States Department of the Interior, Fish and Wildlife Service (USFWS). The EA documents the need for action and assesses potential impacts on the human environment of three alternatives to address that need.

PUBLIC COMMENTS

The EA was made available for review and comment from December 26, 2018 to January 31, 2019. The document was made available through a Notice of Availability (NOA) published in the *Times Argus*, and sent to interested parties through the APHIS Stakeholder Registry. WS also published the document on the program website. Two responses were received, but lacked substantive comments. All correspondence on the EA is maintained at the WS State Office, 59 Chenell Dr, Suite 7, Concord, NH 03301-8548.

ISSUES ASSOCIATED WITH MAMMAL DAMAGE MANAGEMENT ACTIVITIES

The EA analyzed a range of management alternatives in context of issues relevant to the scope of the analysis including:

- Issue 1 - Effects of Damage Management Activities on Target Mammal Populations
- Issue 2 - Effects of Damage Management on Non-target Wildlife Species Populations, Including T&E Species
- Issue 3 - Effects of Damage Management Methods on Human Health and Safety
- Issue 4 - Humaneness and Animal Welfare Concerns of Methods

AFFECTED ENVIRONMENT

Mammals can be found across Vermont throughout the year. Therefore, damage or threats of damage associated with mammals could occur wherever mammals occur as would requests for assistance to manage damage or threats of damage. Assistance would only be provided by WS when requested by a landowner or manager and WS would only provide direct operational assistance on properties where a Memorandum of Understanding (MOU), Cooperative Service Agreement (CSA), or other comparable document had been signed between WS and the cooperating entity.

Upon receiving a request for assistance, the proposed action alternative, or those actions described in the other alternatives could be conducted on private, federal, state, tribal, and municipal lands in Vermont to reduce damage and threats associated with mammals. Areas where damage or threats of damage could occur include, but would not be limited to agricultural fields, vineyards, orchards, farms, aquaculture facilities, grain mills, grain handling areas, railroad yards, waste handling facilities, industrial sites,

natural resource areas, park lands, and historic sites; state and interstate highways and roads; property in or adjacent to subdivisions, businesses, and industrial parks; timberlands, croplands, and pastures; private and public property where burrowing mammals cause damage to structures, dikes, ditches, ponds, and levees; public and private properties in rural/urban/suburban areas where mammals cause damage to landscaping and natural resources, property, and are a threat to human safety through the spread of disease. The areas could also include airports and military airbases where mammals are a threat to human safety and to property; and areas where mammals negatively affect wildlife, including T&E species.

DESCRIPTION OF THE ALTERNATIVES

The following three alternatives were developed to respond to the issues identified in Chapter 2 of the EA. A detailed discussion of the effects of the alternatives on the issues is described in the EA under Chapter 3 (USDA 2018); below is a summary of the alternatives.

Alternative 1 - Continue the Current Adaptive Integrated Mammal Damage Management Program (No Action/Proposed Action)

The no action/proposed action alternative would continue the current implementation of an adaptive integrated approach utilizing non-lethal and lethal techniques, as deemed appropriate using the WS Decision Model, to reduce damage and threats caused by mammals. WS, in consultation with the VFWD, 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.

The adaptive approach to managing damage associated with mammals would integrate the use of the most practical and effective methods to resolve a request for damage management as determined by site-specific evaluation to reduce damage or threats to human safety for each request. City/town managers, agricultural producers, property owners, and others requesting assistance would be provided information regarding the use of appropriate non-lethal and lethal techniques. WS would work with those persons experiencing mammal damage in addressing those mammals responsible for causing damage as expeditiously as possible. To be most effective, damage management activities should begin as soon as mammals begin to cause damage. Mammal damage that has been ongoing can be difficult to resolve using available methods since mammals could be conditioned to an area and are familiar with a particular location. Subsequently, making that area unattractive through the use of available methods can be difficult to achieve once damage has been ongoing. WS would work closely with those entities requesting assistance to identify situations where damage could occur and begin to implement damage management activities under this alternative as early as possible to increase the likelihood of those methods achieving the level of damage reduction requested by the cooperating entity.

Under this alternative, WS would respond to requests for assistance by: 1) taking no action if warranted, 2) providing only technical assistance to property owners or managers on actions they could take to reduce damages caused by mammals, or 3) provide technical assistance and direct operational assistance to a property owner or manager experiencing damage. The removal of many of the mammal species native to Vermont or designated game species can only legally occur through regulated hunting and trapping seasons or through the issuance of a permit or license by the VFWD and only at levels specified in the permit. Activities conducted under this alternative would occur in compliance and in coordination with the VFWD, for example, having the proper permitting taken care of beforehand and only removing species at the specified levels.

Property owners or managers requesting assistance would be provided with information regarding the use of effective and practical non-lethal and lethal techniques under this alternative. Property owners or

managers may choose to implement WS' recommendations on their own (*i.e.*, technical assistance), use contractual services of private businesses, use volunteer services of private organizations, use the services of WS (*i.e.*, direct operational assistance), take the management action themselves without consulting another private or governmental agency, or take no action.

Mammals could be euthanized by close range gunshot once live-captured, which is a method of euthanasia considered appropriate by the American Veterinary Medical Association (AVMA) for free-ranging wildlife, when administered appropriately (AVMA 2013). On occasion, euthanasia of live-captured mammals would occur through the use of euthanasia drugs or carbon dioxide once the animal was captured using other methods. Euthanasia drugs are an acceptable form of euthanasia for free-ranging wildlife while carbon dioxide is a conditionally acceptable¹ method of euthanasia (AVMA 2013).

Lethal and non-lethal methods are intended to be short-term attempts at reducing damage occurring at the time those methods are employed. Long-term solutions to managing mammal damage would include limited habitat manipulations, exclusion and/or changes in cultural practices, which are addressed further below and in Appendix B.

Non-lethal methods can disperse or otherwise make an area unattractive to mammals; thereby, reducing the presence of mammals 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) and include methods of exclusions, harassment, habitat modification, and live trap and translocation. 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 when the requesting entity has used non-lethal methods previously and found those methods to be inadequate in resolving the damage or threats of damage. When effective, non-lethal methods would disperse mammals from the area resulting in a reduction in the presence of those mammals at the site. For any management methods employed, the proper timing is essential in effectively dispersing those mammals causing damage. Employing methods soon after damage begins or soon after threats are identified increases the likelihood that those damage management activities would achieve success in addressing damage. Therefore, coordination and timing of methods is necessary to be effective in achieving expedient resolution of mammal damage.

Lethal methods would be employed to resolve damage associated with those mammal species identified by WS as responsible for causing damage or threats to property, agricultural resources, natural resources, and human health and safety only after receiving a request for the use of those methods. The use of lethal methods may result in local population reductions in the area where damage or threats were occurring since mammals would be removed from the population. Lethal methods are often employed to reinforce non-lethal methods and to remove mammals that have been identified as causing damage or posing a threat to cause damage. The number of mammals removed from the population using lethal methods under the proposed action would be dependent on the number of requests for assistance received, the number of mammals involved with the associated damage or threat, whether negative impacts are sufficiently reduced to protect property or human health and safety, and the efficacy of methods employed.

WS may recommend mammals be harvested during the regulated hunting and/or trapping season for those species in an attempt to reduce the number of mammals causing damage. Managing mammal populations over broad areas could lead to a decrease in the number of mammals causing damage, however population management is not the goal of WS' technical assistance or direct operational assistance.

¹The AVMA (2013) defines conditional acceptable as "...[methods] that by the nature of the technique or because of greater potential for operator error or safety hazards might not consistently produce humane death or are methods not well documented in the scientific literature".

Establishing hunting or trapping seasons and managing wildlife populations is the responsibility of the VFWD. WS' main responsibility focuses on animal damage management. Additionally, WS will comply with all permitting required to carry out the work involved.

Alternative 2 - Non-lethal Mammal Damage Management Only by WS

Under this alternative, WS would be restricted to only using or recommending non-lethal methods to resolve damage caused by mammals (found in Appendix B of EA). These non-lethal methods include exclusions, habitat management, animal behavioral modifications (*e.g.* human effigies, harassment), and live capture and translocation. Lethal methods could continue to be used under this alternative by those persons experiencing damage from mammals without involvement by WS. In situations where non-lethal methods were impractical or ineffective to alleviate damage, WS could refer requests for information regarding lethal methods to the VFWD, local animal control agencies, or private businesses or organizations. Property owners or managers might choose to implement WS' non-lethal recommendations on their own or with the assistance of WS, implement lethal methods on their own, or request assistance (non-lethal or lethal) from a private or public entity other than WS.

Alternative 3 - No Mammal Damage Management Conducted by WS

This alternative would preclude any and all activities by WS to reduce threats to human health and safety, and to alleviate damage to agricultural resources, property, and natural resources. WS would not be involved with any aspect of mammal damage management. All requests for assistance received by WS to resolve damage caused by mammals would be referred to the VFWD and/or other private entities.

Despite no involvement by WS in resolving damage and threats associated with mammals, those persons experiencing damage caused by mammals could continue to resolve damage by employing those methods legally available since the lethal removal of mammals to alleviate damage or threats can occur despite the lack of involvement by WS. The lethal removal of mammals could occur through the issuance of permits by the VFWD, when required, and during the hunting or trapping seasons for regulated game species. All methods described in Appendix B of the EA would be available for use by those persons experiencing damage or threats except for the use of immobilizing drugs and euthanasia chemicals. Immobilizing drugs and euthanasia chemicals can only be used by WS or appropriately licensed veterinarians.

CONSISTENCY

Based on the provisions and protective measures established in the EA, WS determined that activities conducted pursuant to the proposed action may affect but would not likely adversely affect those species listed in the state by the USFWS, including their critical habitats. As part of the development of the EA, WS consulted with the USFWS under Section 7 of the ESA. The USFWS concurred with WS' determinations. The list of species designated as endangered or threatened by the VFWD was reviewed during the development of the EA. Based on the review of species listed, WS determined that the proposed activities may affect but would not likely adversely affect those species listed by the state.

MONITORING

The WS-Vermont program will annually review its effects on mammals and other non-target species addressed in the EA to ensure those activities do not impact the viability of wildlife species. In addition, the EA will be reviewed each year to ensure that the analyses are sufficient.

CUMULATIVE IMPACTS OF THE PROPOSED ACTION

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

DECISION AND FINDING OF NO SIGNIFICANT IMPACT

I have carefully reviewed the EA prepared for this proposal and the input from the public involvement process. 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 analysis in the EA adequately addresses the identified issues, which reasonably confirm that no significant impact, individually or cumulatively, to 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 Environmental Impact Statement (EIS).

Based on the analyses in the EA, the need for action and the issues identified are best addressed by selecting Alternative 1 and applying the associated standard operating procedures. Alternative 1 successfully addresses (1) mammal damage management using a combination of the most effective methods and does not adversely impact the environment, property, human health and safety, target species, 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; (3) it presents the greatest chance of maximizing net benefits while minimizing adverse effects to public health and safety; and (4) it offers a balanced approach to the issue of humaneness when all facets of that issue are considered. Further analysis would be triggered if changes occur that broaden the scope of damage management activities 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.

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. Mammal 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. Based on the analyses in the EA, the methods available would not adversely affect human safety based on their use patterns and standard operating procedures.

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 may be some opposition to mammal 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.
8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.
9. WS has determined that the proposed program would not adversely affect any federally listed T&E species currently listed in the State. In addition, WS has determined that the proposed activities would not adversely affect state-listed T&E species.
10. The proposed action would comply with all applicable federal, state, and local laws.

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) mammal damage management would only be conducted by WS at the request of landowners/managers, 2) management actions would be consistent with applicable laws, regulations, policies and orders, and 3) no significant effects to the environment were identified in the analysis. As a part of this Decision, the WS program would continue to provide effective and practical technical assistance and direct management techniques that reduce damage and threats of damage.

Willie D. Harris, Director-Eastern Region
USDA/APHIS/WS
Raleigh, North Carolina

Date

APPENDIX A
LITERATURE CITED

AVMA (American Veterinary Medical Association). 2013. AVMA guidelines for the euthanasia of animals: 2013 edition. American Veterinary Medical Association, Schaumburg, IL, USA.

USDA (U.S. Department of Agriculture). 2018. Environmental Assessment: Mammal Damage Management in the State of Vermont. USDA, APHIS, WS, Concord, NH.