

DECISION

ENVIRONMENTAL ASSESSMENT: REDUCING LARGE RODENT DAMAGE IN THE COMMONWEALTH OF MASSACHUSETTS

I. PURPOSE

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program has prepared an Environmental Assessment (EA) to analyze the potential environmental and social impacts to the quality of the human environment from resolving damage, including conflicts and threats, to agricultural resources, natural resources, property, and human safety associated with beaver (*Castor canadensis*), muskrats (*Ondatra zibethicus*), porcupines (*Erethizon dorsatum*), and woodchucks (*Marmota monax*) (USDA 2012). The EA documents the need for damage management in the Commonwealth and assesses potential impacts on the human environment of three alternatives to address that need. WS' proposed action in the EA would continue an integrated methods approach to fully address the need to manage damage and threats associated with large rodents.

The EA evaluated the issues and alternatives associated with managing damage and threats caused by large rodents in the Commonwealth. The EA was prepared by WS to determine if the alternatives could have a significant impact on the quality of the human environment. Specifically, the EA was prepared to: 1) facilitate planning, 2) promote interagency coordination, 3) streamline program management, 4) clearly communicate to the public the analysis of individual and cumulative impacts, and 5) evaluate the potential environmental consequences of the alternatives related to the issues of managing damage caused by large rodents.

II. NEED FOR ACTION

The need for action arises from requests for assistance received by WS to reduce and prevent damage associated with large rodents from occurring to four major categories: agricultural resources, natural resources, property, and threats to human safety. WS would only conduct damage management after receiving a request for assistance. Before initiating activities in the Commonwealth, a Memorandum of Understanding, cooperative service agreement, or other comparable document would be signed between WS and the entity requesting assistance, which would list all the methods the property owner or manager would allow to be used on property they own and/or manage. WS may also be requested to participate in disease surveillance and monitoring in the event of a disease outbreak or potential outbreak in a large rodent population.

III. SCOPE OF ANALYSES IN THE EA

The EA evaluates managing damage under three alternatives to resolve damage to agricultural resources, natural resources, property, and to reduce threats to human health and safety wherever such management has been requested by a cooperator. The analyses in the EA are intended to apply to any action taken by WS to alleviate damage or threats of damage associated with large rodents that may occur in any locale and at any time within the Commonwealth. The EA emphasizes major issues as they relate to specific areas; however, the issues addressed apply wherever large rodent damage and the resulting damage management activities could occur. The standard WS Decision Model (Slate et al. 1992) would be the site-specific procedure for individual actions conducted by WS.

The Massachusetts Division of Fisheries and Wildlife (MDFW) has jurisdiction over the management of large rodents and has specialized expertise in identifying and quantifying potential adverse effects to the human environment from damage management activities. Damage management activities conducted by

WS under the alternatives would only occur when permitted by the appropriate entity through the issuance of appropriate permits, when applicable. Therefore, the EA evaluated the methods available under the alternatives and the use of those methods by WS to manage or prevent damage and threats associated with large rodents. Assistance would only occur when requested by the appropriate resource owner or manager and when permitted by the appropriate entity, as required.

The EA was made available to the public for review and comment by a legal notice published daily in the *Boston Herald* from May 26, 2012 through May 28, 2012. A notice of availability and the EA were also made available for public review and comment on the APHIS website at http://www.aphis.usda.gov/wildlife_damage/nepa.shtml beginning on May 23, 2012. A letter of availability was also mailed directly to 40 different agencies, organizations, and individuals with probable interest in large rodent damage management in the Commonwealth. The public involvement process ended on June 29, 2012. The public notices and public involvement process for the EA were conducted in accordance with WS' public notification requirements (see 72 FR 13237-13238).

WS received 30 comment letters relating to the EA. Comments from the public involvement process were reviewed for substantive issues and alternatives, which were considered in developing the Decision for the EA. A summary of the comments received and responses to the comments are provided in Appendix A of this Decision. Based upon those comments, several minor editorial changes were incorporated into the EA that are discussed in the responses to the comments. Those minor changes enhanced the understanding of the EA, but did not change the analysis provided in the EA.

IV. 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 methods and techniques employed by WS to manage wildlife damage, including methods used to manage damage associated with large rodents.

WS has also developed an EA that analyzed the environmental effects of WS' involvement in the funding of and participation in oral rabies vaccination programs to eliminate or stop the spread of raccoon rabies in a number of eastern states and gray fox and coyote rabies in Texas (USDA 2005). In addition, the WS program in Massachusetts developed an EA to evaluate the need for and alternatives to address aircraft strike risks associated with wildlife in the Commonwealth (USDA 2002).

V. 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 wildlife species in the Commonwealth is the responsibility of the MDFW. As the authority for the management of wildlife, the MDFW was consulted during the development of the EA and provided input to ensure an interdisciplinary approach according to the National Environmental Policy Act (NEPA) and agency mandates, policies, and regulations.

The EA and this Decision ensures WS' actions comply with the NEPA, with the Council on Environmental Quality guidelines (40 CFR 1500), and with APHIS' NEPA implementing regulations (7 CFR 372). All damage management activities would be conducted consistent with: 1) the Endangered Species Act of 1973, 2) the Federal Insecticide, Fungicide, and Rodenticide Act, 3) applicable Executive Orders, 4) Massachusetts Wetland Protection Act, and 4) applicable Federal, Commonwealth, and local laws, regulations and policies, including WS' Directives.

VI. DECISIONS TO BE MADE

Based on the scope of the EA, the decisions to be made are: 1) should WS conduct large rodent damage management to alleviate damage to agriculture, natural resources, property, and threats to human safety, 2) should WS conduct disease surveillance and monitoring in the large rodent population when requested by the MDFW and other agencies, 3) should WS implement an integrated wildlife damage management strategy, including technical assistance and direct operational assistance, to meet the need for large rodent damage management in Massachusetts, 4) if not, should WS attempt to implement one of the alternatives to an integrated damage management strategy as described in the EA, and 5) would the proposed action or the other alternatives result in effects to the human environment requiring the preparation of an Environmental Impact Statement (EIS).

VII. AFFECTED ENVIRONMENT

Damage or threats of damage cause by large rodents can occur statewide in Massachusetts wherever those species occur. However, damage management would only be conducted by WS 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 a cooperating entity. Upon receiving a request for assistance, activities could be conducted on federal, Commonwealth, tribal, municipal, and private properties in Massachusetts. The areas of the proposed action could include areas in and around commercial, industrial, public, and private buildings, facilities and properties and at other sites where large rodents may den, dam, fell trees, feed, burrow, or otherwise occur. Examples of areas where large rodent damage management activities could be conducted are, but are not necessarily limited to: agricultural fields, vineyards, orchards, farmyards, dairies, ranches, livestock operations, aquaculture facilities, fish hatcheries, grain mills, grain handling areas, railroad yards, waste handling facilities, industrial sites, natural areas, government properties and facilities, private properties, corporate properties, schools, hospitals, parks, woodlots, recreation areas, communally-owned homeowner/property owner association properties, wildlife refuges, and wildlife management areas. The affected environment could also include areas where large rodents negatively affect wildlife, including T&E species; and public property where large rodents are negatively affecting historic structures, cultural landscapes, and natural resources.

VIII. ISSUES ADDRESSED IN THE ANALYSIS OF ALTERNATIVES

Issues related to managing damage associated with large rodents in Massachusetts were defined and preliminary alternatives were identified through consultation with the MDFW. The EA was also made available to the public for review and comment through notices published in local media and through direct notification of interested parties.

Chapter 2 of the EA describes in detail the issues considered and evaluated in the EA (USDA 2012). 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 those major issues:

- Issue 1 - Effects of Damage Management Activities on Large Rodent Populations
- Issue 2 - Effects on Non-target Species Populations, Including T&E Species
- Issue 3 - Effects of Damage Management Methods on Human Health and Safety
- Issue 4 - Effects on Socio-Cultural and Economics of the Human Environment
- Issue 5 - Humaneness and Animal Welfare Concerns of Methods Available
- Issue 6 - Effects of Beaver and Muskrat Damage Management on Wetlands

IX. ISSUES CONSIDERED BUT NOT ANALYZED IN DETAIL WITH RATIONALE

In addition to those issues analyzed in detail, several issues were identified during the development of the EA but were not considered in detail. The rationale for the decision not to analyze those issues in detail is discussed in the EA. Those issues not analyzed in detail were:

- Appropriateness of Preparing an EA (Instead of an EIS) For Such a Large Area
- WS' Impact on Biodiversity
- A Loss Threshold Should Be Established Before Allowing Lethal Methods
- Large Rodent Damage Management Should Not Occur at Taxpayer Expense
- Cost Effectiveness of Management Methods
- Effectiveness of Large Rodent Damage Management Methods
- Large Rodent Damage Should Be Managed By Private Nuisance Wildlife Control Agents
- Effects of Damage Management Activities on the Regulated Harvest of Large Rodents
- Effects on Public Use of Large Rodents
- Effects from the Use of Lead Ammunition in Firearms
- A Site Specific Analysis Should be Made for Every Location Where Large Rodent Damage Management Could Occur

X. DESCRIPTION OF THE ALTERNATIVES

The alternatives were developed to respond to the issues identified in Chapter 2 of the EA (USDA 2012). 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 - Continuing the Current Integrated Approach to Managing Large Rodent Damage (Proposed Action/No Action)

The proposed action would continue the current program of employing an integrated approach using methods, as appropriate, to reduce damage associated with large rodents in the Commonwealth. An integrated methods 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. Technical assistance provided under this alternative would be similar to technical assistance provided under Alternative 2.

All of the methods addressed in Appendix B of the EA would be available to WS for use to resolve requests for assistance to manage damage associated with large rodents in the Commonwealth. Using the WS Decision model discussed in the EA, WS could employ methods singularly or in combination in an integrated approach to alleviate damage caused by large rodents.

Alternative 2 - Large Rodent 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 damage management that those cooperators could implement 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 large rodents would be placed on those persons experiencing damage. Those persons could employ those methods recommended by WS, could employ other methods, could seek further assistance from other entities, or could take no further action.

Alternative 3 – No Large rodent Damage Management Conducted by WS

Under the no involvement alternative, WS would not be involved with any aspect of managing damage caused by large rodents in the Commonwealth. All requests for assistance received by WS would be referred to the MDFW and/or other entities.

XI. ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

Additional alternatives were also evaluated but were not considered in detail in the EA with rationale provided. The alternatives analyzed but not in detail included:

- Non-lethal Methods Implemented Before Lethal Methods
- Use of Non-lethal Methods Only by WS
- Use of Lethal Methods Only by WS
- Trap and Translocate Large Rodents Only
- Reducing Damage by Managing Large Rodent Populations through the Use of Reproductive Inhibitors
- Compensation for Large Rodent Damage
- Establish Bounties for Large Rodents in the Commonwealth
- Use of Live-capture methods only with Beaver Euthanized after Capture

XII. STANDARD OPERATING PROCEDURES

The current WS program uses many standard operating procedures. Standard operating procedures were discussed in Chapter 3 of the EA (USDA 2012). Those standard operating procedures would be incorporated into activities conducted by WS under the proposed action alternative (Alternative 1) and when applicable, under the technical assistance alternative (Alternative 2). If the no involvement by WS alternative (Alternative 3) were selected, the lack of assistance by WS would preclude the employment or recommendation of those standard operating procedures addressed in the EA.

XIII. ENVIRONMENTAL CONSEQUENCES FOR ISSUES ANALYZED IN DETAIL

The EA analyzes the environmental consequences of each alternative as that alternative related to the issues identified to provide information needed for making informed decisions in selecting the appropriate alternative to address the need for action. The following resource values in Massachusetts were 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 because of any of the alternatives. Those alternatives would meet the requirements of applicable laws, regulations, and Executive Orders, including the Clean Air Act and Executive Order 13514.

Chapter 4 of the EA analyzed 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 served as the baseline for the analysis and the comparison of expected impacts among the alternatives. The analyses also take into consideration mandates, directives, and the procedures of WS and the MDFW. The analyses in Chapter 4 of the EA indicate the potential impacts to the quality of the human environment would be similar across the alternatives.

Issue 1 - Effects of Damage Management Activities on Large Rodent Populations

Under the proposed action (Alternative 1), WS could incorporate non-lethal and lethal methods described in Appendix B of the EA in an integrated approach in which all or a combination of methods could be employed to resolve a request for assistance. WS could recommend and operationally employ both non-lethal and lethal methods, as governed by Federal, Commonwealth, and local laws and regulations under the proposed action. Under Alternative 2 (technical assistance only), WS could recommend methods that someone requesting assistance could employ to alleviate damage or threats of damage; however, WS would not be directly involved in managing damage. No assistance would be provided by WS under Alternative 3 and all requests for assistance would be referred to other entities. Those methods addressed in Appendix B of the EA would be available for use under all the alternatives, except for zinc phosphide (only available to WS) and banned traps¹ (available for use on federal properties only).

Non-lethal methods would be used to excluded, harass, and disperse target wildlife from areas where damage or threats were occurring. Non-lethal methods available under the alternatives could disperse or otherwise make an area unattractive to large rodents that were causing damage; thereby, reducing the presence of those species at the site and potentially the immediate area around the site where non-lethal methods were employed. Non-lethal methods would be given priority when addressing requests for assistance by WS under Alternative 1 and Alternative 2. However, non-lethal methods would not necessarily be employed to resolve every request for assistance if deemed inappropriate by WS' personnel using the WS Decision Model, especially in situations where the requesting entity had already attempted to resolve the damage or threats of damage using non-lethal methods. When effective, non-lethal methods would disperse large rodents from the area resulting in a reduction in the presence of those species at the site where those methods were employed. Non-lethal methods are generally regarded as having minimal impacts on overall populations of wildlife since those species are unharmed. The continued use of non-lethal methods often leads to the habituation of wildlife to those methods, which can decrease the effectiveness of those methods.

When employed under the alternatives, lethal methods would often be employed to reinforce non-lethal methods and to remove those animals that have been identified as causing damage or posing a threat to human safety. The use of lethal methods could result in local reductions of animals in the area where damage or threats were occurring. Under the proposed action alternative, WS could be requested to provide direct operational assistance where WS employs lethal methods to remove target species. The number of target species removed by WS annually using lethal methods would be dependent on the number of requests for assistance received, the number of individuals involved with the associated damage or threat, and the efficacy of methods employed. The levels of estimated annual lethal take of target species addressed in the EA under the proposed action alternative were based on activities that were conducted to address previous requests for assistance. In addition, the estimated annual lethal take levels were based on receiving future requests for assistance and the efforts of WS to address those requests for assistance.

¹Traps designed to capture and hold a furbearing mammal by gripping the mammal's body or body part are prohibited, including steel jaw foothold traps, padded foothold traps, snares, and species specific traps, such as those used to capture raccoons

Large rodents that could be taken by WS under the proposed action alternative could be taken by those persons experiencing damage or threats in the absence of WS' direct involvement under the other alternatives since the take of large rodents can occur when a permit has been issued, when required. In addition, large rodents could be lethally taken to alleviate damage or reduce threats during the regulated hunting and/or trapping seasons in the Commonwealth. Since the lack of WS' direct involvement does not preclude the lethal take of large rodents by those persons experiencing damage or threats, WS' involvement in the taking of those animals under the proposed action would not be additive to the number of animals that could be taken by other entities in the absence of WS' involvement. The number of large rodents taken annually would likely be similar across the alternatives, since the take of large rodents could occur even if WS was not directly involved with providing assistance under Alternative 2 and Alternative 3. Those activities proposed, including the proposed take of large rodents, under Alternative 1 would not be additive to the number of animals that could be taken by other entities under the other alternatives despite the lack of WS' involvement.

Based on those quantitative and qualitative parameters addressed in the EA, the proposed levels of take for each large rodent species addressed under the proposed action alternative (Alternative 1) would be considered of low magnitude when compared to population trend data, population estimates, and/or harvest data. The number of large rodents lethally taken annually under the alternatives would likely be similar since the take of large rodents could occur despite no involvement by WS. WS does not have the authority to regulate the number of large rodents taken annually by other entities. WS' take of large rodents would only occur at levels authorized and only when permitted, when a permit was required for take.

In addition, based on the levels of take that have occurred previously by WS and by other entities and in anticipation of the permitting of take at levels addressed in the EA, the cumulative take levels addressed would also be of low magnitude when compared to those quantitative and qualitative parameters addressed in the EA. The permitting of take ensures that cumulative take levels would occur within allowable levels to maintain species' populations and meet population objectives for each species.

Issue 2 - Effects on Non-target 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 would be 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.

Non-target species have not been lethally taken by WS during previous activities conducted to alleviate damage or threats associated with large rodents. Although non-targets could be lethally taken by WS, take of individuals from any species is not likely to increase substantively.

Under the no involvement by WS alternative, WS would not be directly involved with any aspect of damage management associated with large rodents; 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 damage or threats. Similar to the no WS involvement alternative, under the technical assistance alternative, if methods were applied as intended and with regard for non-target hazards, those methods would not result in the decline of non-target species' populations from unintentional take. If requestors were provided technical assistance but do not implement any of the recommended actions and take no further action, the potential impacts to non-targets would be lower compared to the proposed action. If those persons requesting assistance implement recommended methods appropriately and as instructed or demonstrated, the potential impacts to non-targets would be

similar to the proposed action. Methods or techniques not implemented as recommended or used inappropriately would likely increase risks to non-targets. When employing direct operational assistance under the proposed action alternative, WS could employ methods and use techniques that would avoid non-target take as described in Chapter 3 of the EA under the standard operating procedures.

The ability to reduce damage and threats caused by large rodents would be variable and would be based upon the skills and abilities of the person implementing damage management actions under Alternative 2 and Alternative 3. If those methods available were applied as intended, risks to non-targets would be minimal to non-existent. If methods available were applied incorrectly or applied without knowledge of wildlife behavior, risks to non-target wildlife would be higher under any of the alternatives. If frustration from the lack of available assistance under Alternative 2 and Alternative 3 caused those persons experiencing damage to use methods that were not legally available for use, risks to non-targets would be higher under those alternatives. People have resorted to the use of illegal methods to resolve wildlife damage that have resulted in the lethal take of non-target wildlife. Under the proposed action alternative, those persons could request direct operational assistance from WS to reduce damage and threats occurring, which would increase the likelihood that non-target species would be unaffected by damage management activities.

The New England Field Office of the United States Fish and Wildlife Service has developed a website that provides up-to-date species occurrence information and provides an outline for action agencies to assist in determining whether consultation for projects is needed under Section 7 of the ESA. Based on review of the website, if T&E species were not present in the project area, WS would conclude the project would have “*no effect*” on T&E species. The no effect determination would be based on the absence of those species in the project area; therefore, no further consultation would occur with the USFWS as indicated by the website and pursuant to Section 7 of the ESA. If, after review of the procedures on the website, WS determines T&E species may be present in a project area based on information provided on the website, WS would follow those procedures outlined on the website to conclude with a determination of effects and the need for further consultation pursuant to Section 7.

Similarly, the MDFW, Natural Heritage and Endangered Species Program (NHESP) has developed the Massachusetts Natural Heritage Atlas and the Interactive Priority and Estimated Habitats website² that provides up-to-date NHESP Estimated Habitats of Rare Wildlife and NHESP Priority Habitats of Rare Species occurrence information. Based on review of the Atlas or website, if no Priority Habitats were present in the project area, WS would conclude the project would have “*no effect*” on state listed T&E species. The no effect determination would be based on the absence of those species in the project area; therefore, no further consultation would occur with the NHESP pursuant to the Massachusetts Endangered Species Act (MESA). If, after review of the Atlas or website, WS determines the project site occurs within Priority Habitat for state listed T&E species, WS would follow those procedures outlined on the NHESP website³ and contact the NHESP directly to determine the need for further consultation and permitting pursuant to the MESA and the Massachusetts Wetlands Protection Act (MWPA). WS would comply with all regulations and requirements pursuant to the MESA and the MWPA in accordance with WS Directive 2.210.

Issue 3 - Effects of Damage 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 available across the alternatives. However, the expertise of WS’ employees in using

²The Natural Heritage and Endangered Species Program website can be found at http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/priority_habitat/online_viewer.htm

³The website can be found at <http://www.mass.gov/dfwele/dfw/nhosp/nhosp.htm>

those methods available likely would reduce threats to human safety since WS' employees would be trained and knowledgeable in the use of those methods. If methods were 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 zinc phosphide under the proposed action alternative would not increase risks to human safety. Although risks do occur from the use of zinc phosphide, when used in consideration of human safety, the use of zinc phosphide would not pose additional risks to human safety beyond those associated with the use of other methods.

Issue 4 - Effects on Socio-Cultural and Economics of the Human Environment

Large rodents often provide aesthetic enjoyment to many people in the Commonwealth through observations, photographing, and knowing they exist as part of the natural environment. Methods available that could be employed under each of the alternatives would result in the dispersal, exclusion, or removal of individuals or small groups of large rodents to resolve damage and threats. Therefore, the use of methods often results in the removal of large rodents from the area where damage was occurring or the dispersal of large rodents from an area. Since methods available for use to manage damage would be similar across the alternatives, the use of those methods would have similar potential impacts on the aesthetics of large rodents. However, even under the proposed action alternative, the dispersal and/or lethal take of large rodents would not reach a magnitude that would prevent the ability to view large rodents outside of the area where damage was occurring. The effects on the aesthetic values of large rodents would therefore be similar across the alternatives and would be minimal.

Issue 5 - Humaneness and Animal Welfare Concerns of Methods Available

The issue of humaneness was also analyzed in detail in relationship to methods available under each of the alternatives. Since many methods addressed in Appendix B of the EA would be available under all the alternatives, the issue of method humaneness would be similar for those methods across all the alternatives. As stated previously, zinc phosphide is the only method that would not be available under all the alternatives. Those traps banned for use in the Commonwealth would only be available for use on federal properties. The ability of WS to provide direct operational assistance under the proposed action alternative would ensure methods were employed by WS as humanely as possible. Under the other alternatives, methods could be used inhumanely if used inappropriately or without consideration of large rodent behavior. However, the efficacy of methods employed by a cooperator would be based on the skill and knowledge of the requestor in resolving the threat to safety or damage situation despite WS' demonstration. A lack of understanding of the behavior of large rodents or improperly identifying the damage caused by large rodents along with inadequate knowledge and skill in using methodologies to resolve the damage or threat could lead to incidents with a greater probability of being perceived as inhumane under Alternative 2 and Alternative 3. Despite the lack of involvement by WS under Alternative 3 and WS' limited involvement under Alternative 2, those methods perceived as inhumane by certain individuals and groups would still be available to the public to use to resolve damage and threats caused by large rodents.

Issue 6 - Effects of Beaver and Muskrat Damage Management on Wetlands

If a beaver dam is not breached and water is allowed to stand, hydric soils and hydrophytic vegetation eventually form. This process can take anywhere from several months to years depending on pre-existing conditions. Hydric soils are those soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions. In general, hydric soils form much easier where wetlands have preexisted. Hydrophytic vegetation includes those plants that grow in water or on a substrate that is at least periodically deficient in oxygen because of excessive water content. If these

conditions are met, then a wetland has developed that would have different wildlife habitat values than an area that has been more recently impounded by beaver dam activity.

The intent of most dam breaching is not to drain established wetlands. With few exceptions, requests from public and private individuals and entities that WS receives involve dam breaching to return an area back to its pre-existing condition within a few years after the dam was created. If the area does not have hydric soils, it usually takes many years for them to develop and a wetland to become established. To address beaver dams in the Commonwealth, a permit must be obtained from the municipal board of health, municipal conservation commission, or the MDFW.

Since permits issued by the municipal boards of health, municipal conservation commissions, or the MDFW would be issued in compliance with the MWPA, activities that could be conducted by WS pursuant to permits issued for manipulating water levels associated with beaver dams would comply with the MWPA. With few exceptions, requests for assistance received by WS from public and private entities would involve manipulating dams to return an area to the condition that existed before the dam had been built, or before the impounded water had been affecting the area long enough for wetland characteristics to become established. WS' personnel receive most requests for assistance associated with beaver dams soon after affected resource owners discover damage. Since nearly all request for assistance associated with beaver dams would not involve wetlands and the permitting of activities pursuant to the MWPA, WS would not adversely affect the status of wetlands within the Commonwealth. As the EA states, the Massachusetts Department of Environmental Protection would be contacted and consulted if situations occurred that were outside of the scope of the permitting process or if areas of impounded water contained wetland characteristics.

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 large rodents by WS would not have significant impacts on statewide populations of those species when known sources of mortality are considered. No risk to public safety is expected when activities are provided and expected by requesting individuals under Alternative 1 and Alternative 2 since only trained and experienced personnel would conduct and/or recommend damage management activities. There is a slight increased risk to public safety when persons who reject assistance and recommendations and conduct their own activities under Alternative 2, and when no assistance is provided under Alternative 3. However, under all of the alternatives, those risks would not be to the point that the impacts would be significant. The analysis in the EA indicates that an integrated approach to managing damage and threats caused by large rodents would not result in significant cumulative adverse effects on the quality of the human environment.

XV. DECISION AND RATIONALE

Based on the analyses in the EA of the alternatives developed to address those issues, including individual and cumulative impacts of those alternatives, the following decision has been reached:

Decision

I have carefully reviewed the EA prepared to meet the need for action. I find the proposed action alternative (Alternative 1) to be environmentally acceptable, addressing the issues and needs while balancing the environmental concerns of management agencies, landowners, advocacy groups, and the public. The analyses in the EA adequately addresses the identified issues, which reasonably confirm that no significant impact, individually or cumulatively, to wildlife populations or the quality of the human

environment are likely to occur from the proposed action, nor does the proposed action constitute a major federal action. Therefore, the analysis in the EA does not warrant the completion of an EIS.

Based on the analyses in the EA, the issues identified are best addressed by selecting Alternative 1 (proposed action/no action) and applying the associated standard operating procedures discussed in Chapter 3 of the EA. Alternative 1 successfully addresses (1) large rodent 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 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 damage management activities in the Commonwealth, that affect the natural or human environment, or from the issuance of new environmental regulations. Therefore, it is my decision to implement the proposed action/no action alternative (Alternative 1) as described in the EA.

Finding of No Significant Impact

Based on the analyses provided in the EA, there are no indications that the proposed action (Alternative 1) would have a significant impact, individually or cumulatively, on the quality of the human environment. I agree with this conclusion and therefore, find that an EIS should not be prepared. This determination is based on the following factors:

1. Large rodent damage management as conducted by WS in the Commonwealth 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 is some opposition to managing large rodent damage, 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 the Commonwealth of Massachusetts.

8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.
9. WS would review the USFWS website and the online measures described on the website on a site-by-site basis to determine if any T&E species were located within the project area in order to conclude with a determination of effects. Based on a determination of effects, WS would consult with the USFWS in accordance with the Endangered Species Act, if required.
10. WS would review the MDFW NHESP Massachusetts Natural Heritage Atlas and/or the Interactive Priority and Estimated Habitats website on a site-by-site basis to determine if any state listed T&E species are located within the project area in order to conclude with a determination of effects. Based on a determination of effects, WS would consult with the NHESP in accordance with the Massachusetts Endangered Species Act and Massachusetts Wetlands Protection Act if required.
11. The proposed action would comply with all applicable federal, Commonwealth, and local laws.
12. 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) 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 adverse effects to the environment were identified in the analysis. As a part of this Decision, the WS program in Massachusetts would continue to provide effective and practical technical assistance and direct management techniques that reduces damage and threats of damage.


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

12/7/12
 Date

XVI. LITERATURE CITED

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

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

USDA. 2005a. Supplemental Environmental Assessment: Oral vaccination to control specific rabies virus variants in raccoons, gray fox, and coyotes in the United States. USDA-APHIS-WS, 4700 River Road, Unit 87, Room 2D05, Riverdale, Maryland 20782.

USDA. 2002. Environmental Assessment: Statewide Wildlife Damage Management at Airports in Massachusetts. USDA, APHIS, WS, 463 West Street, Amherst, Massachusetts 01002.

USDA. 2012. Environmental Assessment - Reducing large rodent damage in the Commonwealth of Massachusetts. USDA, APHIS, WS, 463 West Street, Amherst, Massachusetts 01002.