

**DECISION AND FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT:
AQUATIC RODENT DAMAGE MANAGEMENT IN NEBRASKA
March 2021**

PURPOSE AND NEED FOR ACTION

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) prepared an Environmental Assessment (EA) "Aquatic Rodent Damage Management in Nebraska" to analyze the potential impacts to the quality of the human environment from conducting Aquatic Rodent Damage Management (ARDM) in the state of Nebraska (USDA 2020). The EA and this Decision ensure WS-Nebraska complies with the National Environmental Policy Act (NEPA), with the Council on Environmental Quality guidelines (see 40 CFR 1500), and with the APHIS' NEPA implementing regulations (see 7 CFR 372).

The EA addresses the need to manage damage and threats of damage associated with beaver (*Castor canadensis*), and muskrats (*Ondatra zibethicus*). This document will collectively refer to these species as aquatic rodents. In addition to those species, WS-Nebraska may also receive requests for ARDM assistance with other aquatic rodent species, but requests associated with those species would occur infrequently and/or would involve a small number and will be covered by other NEPA documents.

WS-Nebraska previously developed an EA that analyzed the need for Beaver and Muskrat Damage Management (USDA 2001). Because the new EA re-evaluated activities conducted under the previous EA to address the new need for action and the associated affected environment, the outcome of this Decision for the new EA will supersede the previous 2001 EA.

The need for action identified in Section 1.3 of the new EA arises from requests for ARDM assistance. The EA evaluates the need for action for ARDM, the potential issues associated with managing aquatic rodent damage, and the environmental consequences of conducting different alternatives while addressing the identified issues. WS-Nebraska defined the issues associated with meeting the need for action and identified preliminary alternatives through consultation with the US Fish and Wildlife Service (USFWS) and Nebraska Game and Parks Commission (NGPC). The EA analyzes three alternatives to meet the need for action based on the issues identified in Section 2.1 of the EA.

A discussion of WS' authority and the authority of other agencies, as those authorities relate to ARDM, occurs in Section 1.7, 1.8 and 1.9 of the EA. Section 1.10 includes several laws and statutes that authorize, regulate, or otherwise affect WS' activities. WS-Nebraska would comply with all applicable federal, state, and local laws and regulations in accordance with WS Directive 2.210.

AFFECTED ENVIRONMENT AND ISSUES

Aquatic rodent damage or threats of damage could occur statewide in Nebraska wherever those species occur. The aquatic rodent species addressed in the EA are capable of utilizing a variety of habitats in the state. Aquatic rodents addressed in the EA occur throughout the year across the state where suitable habitat exists for foraging and shelter.

Issues are concerns regarding potential effects that might occur from a proposed activity. Federal agencies must consider such issues during the NEPA decision-making process. Section 2.1 of the EA describes the issues considered and evaluated in detail by WS-Nebraska as part of the decision-making process. In

addition to those six issues analyzed in detail, WS-Nebraska identified eleven additional issues during the development of the EA but WS did not consider those issues in detail. Section 2.2 of the EA discusses the rationale for the decision not to analyze the eleven additional issues in detail.

PUBLIC INVOLVEMENT

WS-Nebraska made the EA available to the public for review and comment by a legal notice published in the *Lincoln Journal Star*, on the APHIS website on September 22, 2020 and on the federal e-rulemaking portal at the regulations.gov website beginning on September 21, 2020. WS-Nebraska also sent a notice of availability directly to agencies, stakeholders, organizations, and individuals with probable interest in ARDM in the state through the gov.delivery portal on September 22, 2020. The opportunity for public comment closed on November 6, 2020.

During the public comment period, WS-Nebraska only received 2 comment submissions on regulations.gov, neither of which contained any substantive information that warranted changes to the EA. Comments that are individual opinions or comments that oppose or support an agency's actions without any substantive information included in the comment do not warrant an agency response.

CHANGES TO THE FINAL EA

In the Pre-Decisional EA we interchangeably used the terms (aquatic mammal) and (aquatic rodent) damage management throughout the EA. We realized that this could be confusing to our readers. For consistency purposes we decided to solely use the term aquatic rodent damage management in the Final EA.

ALTERNATIVES

The EA evaluated three alternatives in detail to respond to the need for action discussed in Chapter 1 and the issues identified in Chapter 2 of the EA. Section 2.3 of the EA provides a description of the alternatives evaluated in detail. A detailed discussion of the effects of the alternatives on the issues occurs in Chapter 3 of the EA. WS-Nebraska considered eight additional alternatives but did not evaluate those alternatives in detail with the rationale provided in Section 2.4 of the EA.

WS-Nebraska would incorporate all the operating policies discussed in Section 2.5 if the decision-maker selects the proposed action alternative (Alternative 1). If the decision maker selects the technical assistance only alternative (Alternative 2), WS-Nebraska operating policies would be more restrictive. If the decision-maker selected the no involvement by WS alternative (Alternative 3), the lack of assistance by WS-Nebraska would preclude the employment or recommendation of those operating policies by WS-Nebraska

ENVIRONMENTAL CONSEQUENCES

Chapter 3 of the EA analyzes the environmental consequences of each alternative as those alternatives relate to the issues by analyzing the environmental consequences of each alternative to determine the extent of actual or potential impacts on the issues. Chapter 3 of the EA provides information needed to make informed decisions when selecting the appropriate alternative to address the need for action. The proposed action/no action alternative (Alternative 1) served as the baseline for the analysis and the comparison of expected impacts among the alternatives.

The following resource values in Nebraska 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 designated for threatened or endangered species), 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 from any of the alternatives. Those alternatives would meet the requirements of applicable laws, regulations, and Executive Orders, including the Clean Air Act. The discussion below provides a summary of the environmental consequences of the alternatives discussed in the EA for each of the issues analyzed in detail.

Issue 1 - Effects of ARDM on Target Aquatic Rodent Species Populations

If WS-Nebraska implemented Alternative 1, WS-Nebraska would incorporate non-lethal and lethal methods into an integrated methods approach in which WS' personnel could employ all or a combination of methods to resolve a request for ARDM assistance. Appendix B of the EA describes the methods that would be available for WS' personnel to use when addressing requests for ARDM assistance.

Non-lethal methods include capture and translocation, water control devices, disperse and structural changes, exclusion, or otherwise make an area unattractive to aquatic rodents that are causing damage; thereby, potentially reducing the presence of those aquatic rodents at the site and potentially the immediate area around the site. The use of non-lethal methods that could exclude target aquatic rodents from a resource may disperse those aquatic rodents to other areas. WS' personnel would not employ non-lethal methods over large geographical areas or apply those methods at such an intensity that essential resources (*e.g.*, food sources, habitat) would be unavailable for extended durations or over such a wide geographical scope that long-term adverse effects would occur to a species' population. Therefore, non-lethal methods generally have minimal effects on overall populations of aquatic rodent species because non-lethal methods do not cause harm to individual aquatic rodent within a species.

A common issue is whether damage management actions would adversely affect the populations of target aquatic rodent species when employing lethal methods. Lethal methods involve take of aquatic rodents that WS-personnel have identified as causing damage or posing a threat to human safety. The number of aquatic rodents removed from a population by WS-Nebraska using lethal methods would be dependent on the number of requests for assistance received. The number of aquatic rodents removed would be dependent on the number of aquatic rodents involved with the associated damage or threat, the efficacy of methods employed, and the number permitted by NGPC. Based on those quantitative and qualitative parameters addressed in the EA, the anticipated number of aquatic rodents that WS-Nebraska employees could lethally take annually to address requests for ARDM assistance under Alternative 1 would be of low magnitude when compared to population trend data, population estimates, and/or harvest data.

The lack of WS-Nebraska's direct involvement does not preclude the lethal removal of aquatic rodent by those persons experiencing damage or seeking assistance from other entities. If the WS program only provided technical assistance under Alternative 2, those people experiencing damage or threats could remove aquatic rodents themselves or seek assistance with removal from other entities under any of the alternatives when the NGPC authorizes the take. Therefore, WS' involvement in the lethal removal of those aquatic rodents under Alternative 1 would not be additive to the number of aquatic rodents that could be removed by other entities in the absence of WS' involvement. The number of aquatic rodents lethally removed annually would likely be similar across the alternatives because the removal of aquatic rodents could occur even if WS-Nebraska was not directly involved with ARDM. WS-Nebraska does not have the authority to regulate the number of aquatic mammals lethally removed annually by other entities.

An indirect effect of using lethal methods when targeting aquatic rodent species that people can harvest in the state is the potential effect on the ability of people to harvest those species. The magnitude of lethal removal under Alternative 1 of harvestable aquatic rodent species (*e.g.*, beaver and muskrats) would be low when compared to the mortality of those aquatic rodent species from all known sources. Based on the limited removal proposed by WS-Nebraska and the oversight by the NGPC, annual take by WS-Nebraska

would have no effect on the ability of those persons interested in harvesting certain aquatic rodent species during the regulated harvest season. Similarly, WS-Nebraska would have no impact on the ability to harvest those species during the annual trapping seasons under Alternative 2 and 3, because the WS-Nebraska program would have limited or no involvement with ARDM associated with those species. However, resource/property owners and other entities could take aquatic rodents resulting in impacts similar to Alternative 1 if WS-Nebraska implemented Alternative 2 or 3. The NGPC would continue to regulate aquatic rodent populations through adjustments in allowed take during the regulated harvest season and through permits or authorizations to manage aquatic rodent damage or threats of aquatic rodent damage.

Issue 2 - Effects of ARDM on Nontarget Species, Including T&E Species

WS-Nebraska personnel have experience with ARDM and receive training in the employment of ARDM methods. Under Alternative 1 and 2, WS' employees would use the WS Decision Model to select the most appropriate methods to address damage caused by nontarget aquatic rodents. WS would not be involved with ARDM under Alternative 3. To reduce the likelihood of dispersing, capturing, or removing nontarget animals, WS-Nebraska would employ selective methods for the target species, would employ the use of attractants that were as specific to target species as possible, and determine ARDM methods to avoid exposure to nontarget animals. Section 2.5 in the EA discuss the operating policies that WS' personnel would follow to prevent and reduce any potential adverse effects on nontarget animals when personnel conduct activities under Alternative 1 and, when applicable, under Alternative 2. Despite the best efforts to minimize nontarget animal exposure to methods during ARDM activities, the potential for WS' personnel to disperse, live-capture, or lethally take nontarget animals exists when applying both non-lethal and lethal ARDM.

WS-Nebraska did not lethally remove any nontarget animals during ARDM activities from FY 2015 through FY 2019. WS-Nebraska take of nontarget animals from ARDM is expected to remain extremely low to non-existent. Although WS' employees could lethally take nontarget animals, removal of individuals from any species is not likely to increase substantially. WS-Nebraska will continue to monitor activities, including any nontarget animal take, to ensure the annual removal of nontarget animals would not result in adverse effects to a species' population. WS-Nebraska personnel did not capture or adversely affected any threatened or endangered species during ARDM activities from FY 2015 through FY 2019.

The ability of people to effectively conduct ARDM would be variable under Alternative 2 and 3, because the skills and abilities of the person implementing ARDM actions or the availability of other entities capable of providing assistance could determine the level of success in resolving damage or the threat of damage. If private citizens or other entities apply those ARDM methods available as intended, risks to nontarget animals would be similar or potentially greater than Alternative 1. If private citizens or other entities apply methods available incorrectly or apply those methods without the proper knowledge of animal behavior, risks to nontarget animals would be higher under any of the alternatives. If frustration from the lack of all available assistance under Alternative 2 and 3 caused those people experiencing aquatic rodents damage to use methods that were not legally available for use, risks to nontarget animals would be higher under those alternatives.

Based on a review of the threatened and endangered species listed in the state during the development of the EA, WS-Nebraska determined that activities conducted pursuant to Alternative 1 would not likely adversely affect those species listed in the state by the USFWS nor their critical habitats. As part of the development of the EA, WS-Nebraska consulted with the USFWS pursuant to Section 7 of the Endangered Species Act. The USFWS concurred with WS' determination that activities conducted pursuant to Alternative 1 would not likely adversely affect those species currently listed in the state or their critical habitats (USFWS 2018). Based on the use pattern of the methods and the locations where WS-Nebraska could implement ARDM activities, the implementation of Alternative 1 would have no effect on those

threatened or endangered species in Nebraska. WS-Nebraska would continue to consult with the USFWS to evaluate activities to resolve ARDM issues to ensure the protection of threatened or endangered species and to comply with the Endangered Species Act. In addition, WS-Nebraska has determined that the proposed activities would not adversely affect those species currently listed by the state. NGPC issues a Nuisance Animal Damage Permit to WS-Nebraska, for certain aquatic rodent species and WS-Nebraska will follow those permit stipulations.

Issue 3 - Effects of ARDM on Human and Pet Safety

The threats to human and pet safety from ARDM would be similar across the alternatives because many of the same methods would be available to the public or private entities. If people used methods incorrectly or without regard for safety, risks to human and pet safety would increase under any of the alternatives. The expertise of WS' employees in using the ARDM methods would likely reduce threats to safety because WS' employees receive training and would be knowledgeable in the use of methods. In addition, WS personnel would use the WS Decision Model when assessing a request for assistance (see WS Directive 2.201). As part of the WS Decision Model, WS' personnel consider risks to human health and safety when evaluating the methods available for ARDM assistance. WS' personnel must also adhere to WS' directives when conducting ARDM (see WS Directive 1.101) and many of the directives address safety or relate to the safe use of methods (*e.g.*, see WS Directive 2.401, WS Directive 2.405, WS Directive 2.430, WS Directive 2.450, WS Directive 2.601, WS Directive 2.615, WS Directive 2.627, WS Directive 2.630, WS Directive 2.635). If WS implements Alternative 1, WS' personnel would also incorporate those operating policies discussed in Section 2.5 of the EA to minimize risks to human health and safety.

No adverse effects to human and pet health and safety occurred from the use of ARDM methods by WS-Nebraska from FY 2015 through FY 2019. Based on the use patterns of ARDM methods available and the experience/training that WS' personnel receive, the implementation of the Alternative 1 would comply with Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) and Executive Order 13045 (Protection of Children From Environmental Health Risks and Safety Risks).

Issue 4 - Effects of ARDM on the Aesthetics

Aquatic rodents may provide aesthetic enjoyment to people, such as through observations, photographing, and knowing they exist as part of the natural environment. Methods available that WS-Nebraska or other entities could employ under each of the alternatives could result in the dispersal, exclusion, or removal of individuals or small groups of aquatic rodents to resolve ARDM issues. Therefore, the use of methods often results in take of aquatic rodent from the area where damage was occurring and dispersal or exclusion of aquatic rodents from an area. Because ARDM impacts would be similar across the alternatives, the use of those methods would have similar potential impacts on the aesthetics of aquatic rodent. However, even under Alternative 1, the dispersal and/or lethal removal of aquatic rodents would not reach a magnitude that would prevent the ability to view those species outside of the area where damage was occurring. The effects on the aesthetic values of aquatic rodent would therefore be similar across the alternatives

Issue 5 – Humaneness and Animal Welfare Concerns

Humaneness in part appears to be a person's perception of harm or pain inflicted on an animal. People may perceive the humaneness of an action differently. The challenge in coping with this issue is how to achieve the least amount of animal suffering. WS-Nebraska uses a decision model to achieve the best possible solution with the most amount of humaneness possible. While alternatives 2 and 3 would rely on landowner and private individuals to incorporate the humane methods. Therefore, less experienced individuals may

use less humane methods than WS-Nebraska. Overall, the effects of ARDM on humaneness is expected to be low for all alternatives.

Issue 6 – Effects of Beaver Take and Dam Manipulation on the Status of Wetlands in the State

Wetlands in Nebraska are regulated by the Army Corp of Engineers and any removal of a beaver dam associated to wetlands in Nebraska are subject to regulations, set by the Army Corp of Engineers.

Under Alternative 1 WS-Nebraska would visually inspect the dam and the associated water impoundment to determine if characteristics exist at the site that would meet the definition of a wetland under section 404 of the CWA (40 CFR 232.2; see Issue 6 in Section 2.2 of this EA). If wetland conditions were present at the site, WS-Nebraska would proceed consistent with guidance from the United States Army Corps of Engineers.

Less experienced individuals may not be aware of the laws in the state regarding dam removal so the impacts may be greater under Alternative 2 and 3. However, these regulations are consistent across all three alternatives, therefore there would be no anticipated adverse effect on the status of wetlands in the state.

CUMULATIVE IMPACTS OF ALTERNATIVE 1:

No significant cumulative environmental impacts are expected from any of the three alternatives, including the proposed action/no action alternative (Alternative 1). Under Alternative 1, the lethal take of target aquatic rodent species by WS-Nebraska to alleviate damage or threats of damage would be of a low magnitude at the levels addressed in the EA when compared to the total known take of those species and the populations of those species.

With management authority over aquatic rodent populations, the NGPC could adjust take levels, including the take by WS, to achieve population objectives for aquatic rodent species. The unintentional take of nontarget animals would likely be limited and would not reach a magnitude where adverse effects would occur to a species' population. From FY 2015 through FY 2019, no take of nontargets occurred by WS-Nebraska ARDM activities. Based on the methods available to resolve ARDM issues and the analysis in the EA, WS-Nebraska does not anticipate the number of nontarget animals lethally removed to reach a magnitude where declines in those species' populations would occur.

WS-Nebraska has received no reports or documented any effects to human safety from ARDM activities conducted from FY 2015 through FY 2019 nor anticipates any to occur. Because those people seeking assistance from WS-Nebraska could take aquatic rodents from areas where damage was occurring themselves in the absence of any involvement by WS, WS-Nebraska involvement would have no effect on the aesthetic value of aquatic rodent in the area where damage was occurring if those people would have removed those aquatic rodent themselves. WS-Nebraska does not expect to have any cumulative adverse effects on the aesthetic value of aquatic rodent if the dispersal or removal occurs at the request of a property owner and/or manager. WS-Nebraska would employ methods as humanely as possible by applying operating policies and using approved methods. The analysis in the EA indicates that the proposed action (Alternative 1) which is an integrated approach to ARDM would not result in significant cumulative adverse effects on the quality of the human environment.

CUMULATIVE IMPACTS OF ALTERNATIVE 2:

Under alternative 2, WS-Nebraska would provide ARDM technical assistance only. In those instances, WS-Nebraska would recommend to cooperators how to address conflicts on their own. Cooperators would be held to all local and state laws and regulations but may have less experience and knowledge. Under

Alternative 2, WS-Nebraska would recommend an integrated approach similar to Alternative 1. This Alternative would place the immediate burden of operational damage management work on the resource owner, other government agencies, and/or private businesses. Under this alternative WS-Nebraska would have no impact on any aquatic rodent species population in Nebraska.

CUMULATIVE IMPACTS OF ALTERNATIVE 3:

Under this alternative, WS-Nebraska would have no impact on any aquatic rodent species population in Nebraska because the program would not conduct any operational ARDM activities. WS-Nebraska would continue to participate with other wildlife damage management activities but would not provide ARDM in the state. WS-Nebraska personnel would refer all ARDM requests to NGPC.

DECISION AND RATIONALE

Based on the analysis included in this EA, I have carefully reviewed the final EA prepared to meet the need for action. I find the proposed action/no 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 final EA adequately address the identified issues, which reasonably confirm that no significant impact, individually or cumulatively, to aquatic rodents populations or the quality of the human environment are likely to occur from Alternative 1, nor does Alternative 1 constitute a major federal action. Therefore, the analyses in the final EA does not warrant the completion of an Environmental Impact Statement.

Based on the analyses in the final EA, selecting Alternative 1 would best address the issues identified in Chapter 2 of the final EA and applying the associated operating policies discussed in Chapter 3 of the final EA. Alternative 1 successfully addresses ARDM using a combination of the most effective methods and does not adversely impact the environment, property, human health and safety, target species, and/or nontarget species, including threatened or endangered species. Alternative 1 offers the greatest chance of maximizing effectiveness and benefits to resource owners and managers while minimizing adverse impacts to public health and safety and the environment. Implementing Alternative 1 would offer a balanced approach to the issues of humaneness, animal welfare, aesthetics, and wetlands when considering all facets of those issues. Changes that broaden the scope of ARDM activities in the state, changes that affect the natural or human environment, or changes from the issuance of new environmental regulations would trigger further analysis. Therefore, it is my decision to implement Alternative 1 as described in the final EA.

FINDING OF NO SIGNIFICANT IMPACT

Based on the analyses provided in the final EA, there are no indications that 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 Environmental Impact Statement should not be prepared. I base this determination on the following factors:

1. WS-Nebraska ARDM activities in the state under Alternative 1 would not be regional or national in scope.
2. Based on the analyses in the final EA, the methods available under Alternative 1 would not adversely affect human safety based on their use patterns.
3. Alternative 1 would not significantly affect unique characteristics, such as parklands, prime farmlands, wetlands, wild and scenic areas, or ecologically critical areas. Operating policies

discussed in Section 2.5 and 2.6 of the final EA and WS' adherence to applicable laws and regulations would further ensure that activities conducted under Alternative 1 would not harm the environment.

4. The effects on the quality of the human environment under Alternative 1 are not highly controversial. Although there is some opposition to managing aquatic rodent damage and the methods, this action is not highly controversial in terms of size, nature, or effect.
5. Based on the analysis documented in the final EA and the accompanying administrative file, the effects of Alternative 1 on the human environment would not be significant. The effects associated with implementing Alternative 1 are not highly uncertain and do not involve unique or unknown risks.
6. Alternative 1 would not establish a precedent for any future action with significant effects.
7. The final EA did not identify significant cumulative effects associated with implementing Alternative 1. The final EA analyzed cumulative effects and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the State of Nebraska.
8. Alternative 1 would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would Alternative 1 likely cause any loss or destruction of significant scientific, cultural, or historical resources.
9. WS-Nebraska has consulted with the USFWS pursuant to Section 7 of the Endangered Species Act and the USFWS has concurred with WS' effects determination. In addition, WS-Nebraska has determined that the proposed activities would not adversely affect those species currently listed in the state. NGPC has concurred with WS' determination for state listed species and WS-Nebraska will follow those recommendations provided during the consultation regarding listed species.
10. WS-Nebraska activities conducted under Alternative 1 would comply with all applicable federal, state, and local laws.

I based this decision on several considerations. This decision considers social/political and economic concerns, public health and safety, and the best available science. The foremost considerations are that 1) WS-Nebraska would only conduct activities at the request of landowners/managers, 2) management actions would be consistent with applicable laws, regulations, policies and orders, and 3) the analysis did not identify significant effects to the human environment. By selecting the proposed action (Alternative 1), WS-Nebraska will continue to provide an integrated approach to ARDM to protect agriculture, property, and human health and safety in the state of Nebraska.

Keith Wehner, Director-Western Region
USDA/APHIS/WS
Fort Collins, Colorado

Date

LITERATURE CITED

USDA-APHIS-Wildlife Services-Nebraska. Final Environmental Assessment: Aquatic Rodent Damage Management in Nebraska. March 2021