FINDING OF NO SIGNIFICANT IMPACT
AND
DECISION
FOR
ENVIRONMENTAL ASSESSMENT
ORAL VACCINATION TO CONTROL
SPECIFIC RABIES VIRUS VARIANT IN RACCOONS
ON NATIONAL FOREST SYSTEM LANDS
IN THE UNITED STATES

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service, Wildlife Services (APHIS-WS) program completed an environmental assessment (EA) and Decision/Finding of No Significant Impact (FONSI) on July 30, 2001 (66 FR 45835-45836, August 30, 2001) that analyzed the potential environmental effects of a proposal to continue and expand the involvement of the APHIS-WS program in oral rabies vaccination (ORV) programs in a number of states. Since that time, APHIS-WS determined the need to expand the ORV program to include the states of Tennessee and Kentucky to effectively stop the westward spread of raccoon rabies. A new Decision/FONSI was published in the Federal Register (67 FR 44797-44798, July 5, 2002) to document the potential effects of this expanding program. Next, a supplemental EA was prepared as a result of the need to further expand the program to include the states of Georgia and Maine to effectively prevent the westward and northward spread of the rabies virus across the U.S. and into Canada. Another Decision/FONSI was published in the Federal Register (68 FR 38669-38670, July 30, 2003) to record potential effects of this expanding program. Recently, APHIS-WS, in cooperation with the USDA-Forest Service (USFS), prepared an EA to expand the ORV program to combat the raccoon strain of the rabies virus on National Forest System lands (excluding Wilderness Areas) in the eastern U.S.

The National Forest System lands where APHIS-WS involvement may be expanded are within the states of Maine, New York, Vermont, New Hampshire, Pennsylvania, Ohio, Virginia, West Virginia, Tennessee, Kentucky, Alabama, Georgia, Florida, North Carolina, South Carolina, Massachusetts, Maryland, and New Jersey. Currently, cooperative rabies surveillance activities and/or baiting programs are already being conducted on various land classes, with the exception of National Forest System lands, in many of the aforementioned states. The programs' primary goals are to stop the spread of a specific raccoon rabies variant or "strain" of the rabies virus. If not stopped, this strain could potentially spread to much broader areas of the U.S. and Canada and cause substantial increases in public and domestic animal health costs because of increased rabies exposures. Numerous National Forest System lands are located within current and potential ORV barrier zones. To effectively combat this strain of the rabies virus, it has become increasingly important to bait these large land masses. The EA analyzed the proposed action and a number of alternatives with respect to a number of environmental and other issues raised by involved cooperating agencies and the public.

Based on the analysis in the EA, I have determined that there will not be a significant impact, individually or cumulatively, on the quality of the human environment as a result of the proposed action. This EA is now available in its final form.

Public Involvement

Several EAs have been prepared previously to analyze environmental effects of APHIS-WS' continued and expanded participation with an ORV program in several eastern states and Texas. Issues related to the proposed action were identified through involvement and planning/scoping meetings with state health departments, other state and local agencies, academic institutions, the Ontario Ministry of Natural Resources, and the CDC. Additional efforts to determine further issues that the public might have with ORV program implementation were made through

a Federal Register Notice (66 FR 13696-13700, March 7, 2001) and by a second Federal Register Notice (66 FR 27489, May 17, 2001) making the EA (USDA 2001) available to the public for review and comment prior to an agency decision. A letter was sent to potentially affected or interested American Indian Tribes to assure their opportunity to be involved in the EA process. Comments received were reviewed to identify any substantive new issues or alternatives not already identified for analysis. A third Federal Register Notice (66 FR 45835-45836, August 30, 2001) was published announcing the availability of the EA Decision/FONSI (USDA 2001). A Notice of Availability for a subsequent Decision/FONSI was published through a Federal Register Notice (67 FR 44797-44798, July 5, 2002) (USDA 2002a). A Notice of Availability for a supplemental EA and Decision/FONSI was published through a Federal Register Notice (68 FR 38669-38670, June 30, 2003) (USDA 2003a). This EA has been prepared in cooperation with the USFS to expand ORV program assistance to National Forest System lands, excluding Wilderness Areas, in several eastern states.

Major Issues

Based on the 2001 programmatic ORV EA and considerable experience by cooperating agencies and APHIS-WS in addressing concerns expressed by the public in past ORV programs, the following issues were identified for consideration in detail in this EA:

- Potential for adverse effects on people that become exposed to the vaccine or the baits.
- Potential for adverse effects on target wildlife species populations.
- Potential for adverse effects on nontarget wildlife species, including threatened or endangered species and species designated as sensitive by the USFS Regional Forester.
- Potential for adverse effects on pet dogs or other domestic animals that might consume the baits.
- Potential for the recombined V-RG virus to "revert to virulence" and result in a virus that could cause disease in humans or animals.
- Potential for the V-RG virus to recombine with other viruses in the wild to form new viruses that could cause disease in humans or animals.
- Potential for aerially dropped baits to strike and injure people or domestic animals.
- Cost of the program in comparison to perceived benefits.
- Humaneness of methods used to collect wild animal specimens critical for timely program evaluation or to reduce local populations of target species under state contingency plans.

In addition to the identified major issues considered in detail, eight other issues were considered but not in detail with rationale and further analysis.

Alternatives Analyzed in Detail

Four potential alternatives were developed to address the issues identified above. Three additional alternatives were considered but not analyzed in detail. A detailed discussion of the anticipated effects of the alternatives on each issue considered in detail is described in Chapter 4 of the EA. The following summary provides a brief description of each alternative and its anticipated impacts.

Alternative 1. No Action. This alternative would imply no involvement by APHIS-WS in rabies prevention or control on National Forest System lands within the states identified in section 1.2. The "No Action" alternative is a procedural NEPA requirement (40 CFR 1502), is a viable and reasonable alternative that could be selected, and serves as a basis for comparison with the other alternatives. APHIS-WS could still assist with the ORV program

outside of National Forest System lands. In addition, the states could conduct ORV programs on National Forest System lands without APHIS-WS assistance.

Alternative 2. Proposed Action. (This is the preferred alternative). This alternative would involve the expanded use of federal funds by APHIS-WS to purchase V-RG oral vaccine baits and to participate in their distribution on several National Forest System lands, excluding Wilderness Areas, located within selected areas of the various states listed in section 1.2 under the authorities of the appropriate state agencies in their ongoing efforts of eliminating or stopping the forward spread of raccoon rabies in the eastern U.S. The proposed action would also include APHIS-WS assistance in monitoring and surveillance activities involving the capture and release or lethal collection of the targeted animal species on National Forest lands to take biological samples for testing to determine the effectiveness of the ORV programs. APHIS-WS could also assist state agencies in implementing contingency plans that include the localized population reduction of the target species in areas where rabies outbreaks occur beyond ORV barriers, which may encompass National Forest lands.

Alternative 3. Live-Capture-Vaccinate-Release Programs. This alternative would involve live capture of the target species, raccoons, on National Forest System lands followed by administration of rabies vaccines by injection and release back into the wild.

Alternative 4. Provide Funds to Purchase and Distribute ORV baits without Animal Specimen Collections or Lethal Removal of Animals under Contingency Plans. Under this alternative, APHIS-WS would provide resources for and assistance in National Forest System land ORV bait distribution only and would not engage in or provide funds for the collection of wild animal specimens for monitoring and project evaluation purposes or for implementation of localized lethal removal actions under state contingency plans. APHIS-WS could still assist with all aspects of the ORV program outside of National Forest System lands. The states could still conduct animal specimen collections or lethal removal of animals on National Forest System lands without APHIS-WS assistance.

Alternatives Considered but Not Analyzed in Detail

Three alternatives were considered but not in detail and are described as follows with rationale:

Depopulation of target species. This alternative would result in the lethal removal of raccoons (on National Forest System lands in the eastern states listed) throughout the zones where outbreaks of the rabies strain is occurring or is expected to occur. The goal would be to achieve elimination of the rabies strain by severely suppressing populations of the target animal species over broad areas so that the specific strain of rabies could not be transmitted to susceptible members of the same species. This could theoretically stop the forward advance of the disease and potentially result in elimination of the particular rabies variants as infected animals die from rabies before they could transmit it to other members of the same species. This alternative was not considered in detail because of the cost and effort that would be involved and because it would also undoubtedly be opposed by most members of the public.

Population control through birth control. Under this alternative, APHIS-WS would provide funds or operational assistance to implement one or more methods to control populations of the target species on National Forest System lands by reducing reproduction. Such methods could involve live capture and surgical sterilization, the use of chemical reproductive inhibitors placed out in baits or delivery devices, or the application of *immunocontraception* strategies (i.e., vaccines that can cause infertility in treated animals). This alternative was not considered in detail because of the extreme expense and difficulty involved, the greater effectiveness of vaccination alternatives, and because no contraceptive agents are currently registered for use.

Employ other types of ORV instead of the genetically engineered V-RG vaccine. Under this alternative, APHIS-WS would provide funds to purchase and use "modified-live-virus" (i.e., "attenuated" or weakened strains that have been shown to have little chance of causing rabies in treated animals) or perhaps "killed-virus" (i.e., "inactivated" virus) oral vaccines instead of the V-RG vaccine in ORV baits on National Forest System lands. This alternative was not considered in detail because some of the vaccines involved have the potential to cause rabies (e.g., "live" virus vaccines), others would be cost-prohibitive to produce in ORV form (e.g., "killed" virus vaccines), and none are currently licensed or approved for any such use in the U.S.

Finding of No Significant Impact

The analysis in the EA indicates that there will not be a significant impact, individually or cumulatively, on the quality of the human environment as a result of implementing the proposed action. I agree with this conclusion and therefore find that an EIS need not be prepared. As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

1. **Impacts that may be both beneficial and adverse.** The ORV vaccine and bait that would be used has been found safe to use on raccoons and other animal species, has a low risk of causing adverse affects to humans, is readily consumed by target animal species, and does not cause bioaccumulation in the environment. A limited number of baits would be distributed one or two times per year, thereby limiting the potential for persons to be exposed to an ORV bait or to bait distributing equipment. In addition, positive health benefits to the public and target and nontarget animal populations would occur through decreased risk of exposure to rabid animals.

2. **Degree of effect on public health or safety.** The proposed action would pose minimal adverse impact to public health and safety. Of more than 51 million baits distributed since 1990, few (5) minor injuries and no significant injuries to any member of the public are known to have resulted from ORV programs. Adverse health effects from vaccinia associated with ORV have been minimal with no significant long-term effects expected. Positive health benefits to the public would occur through decreased risk of exposure to rabid animals.

3. **Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.** As described in the EA, no effects to natural or cultural resources were identified for the preferred alternative. There are no prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas affected.

4. **Degree to which effects on the quality of the human environment are likely to be highly controversial.** The effects on the quality of the human environment are not highly controversial. Although there is some opposition to certain methods used to collect animal specimens for monitoring purposes, their use under the proposed action is not highly controversial in terms of size, nature, or effect.

5. **Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.** Based on the analysis documented in the EA, the effects of the proposed involvement by APHIS-WS in ORV programs 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. **Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.** The proposed action would not establish a precedent for any future action with significant effects.

7. **Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.** No significant cumulative effects on the quality of the human environment were identified through this assessment.

8. **Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.** 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. **Degree to which the action may adversely affect an endangered or threatened species or its critical habitat.** An evaluation of the proposed action and its effects on T&E species determined that no significant adverse effects would occur to such species, nor would there be any impact on critical habitat for any listed species.

10. **Whether the action threatens a violation of federal, state, or local environmental protection law.** The proposed action would be in compliance with all Federal, State, and local laws imposed for the protection of the environment.

Decision

I have carefully reviewed the EA and the input resulting from the public involvement process. I believe the issues and objectives identified in the EA would be best addressed through implementation of Alternative 2 (the Proposed Action). Alternative 2 is therefore selected because it offers the greatest flexibility in achieving effectiveness while minimizing cumulative adverse impacts on the quality of the human environment with respect to the issues raised for consideration in this process. The APHIS-WS program will implement the proposed action as described in the EA and in compliance with all applicable mitigation measures listed as components of standard operating procedures in Chapter 3 of the EA. Unless new substantial issues bearing on the effects of the proposed expansion of the oral rabies vaccine program are brought to our attention, this decision will take effect 30 days after publication of a notice of its availability in the Federal Register.

For additional information regarding this decision, please contact Dennis Slate, Rabies Program Coordinator, APHIS-Wildlife Services, 59 Chenell Drive, Suite 7, Concord, NH 03301-8548; phone (603) 223-6832.

William H. Clay 2-12-04

William Clay, Deputy Administrator — Date
APHIS-WS