

FINDING OF NO SIGNIFICANT IMPACT

ORAL RABIES VACCINATION PROGRAM

Midwest Region Parks:

Cuyahoga Valley National Park, Brecksville, OH
Dayton Aviation Heritage National Historical Park, Dayton area, OH
George Rogers Clark National Historical Park, Vincennes, IN
Hopewell Culture National Historical Park, Chillicothe, OH
Indiana Dunes National Lakeshore, Porter, IN
James A. Garfield National Historic Site, Mentor, OH
Keweenaw National Historical Park, Calumet, MI
Lincoln Boyhood National Memorial, Lincoln City, IN
Pictured Rocks National Lakeshore, Munising, MI
Sleeping Bear Dunes National Lakeshore, Empire, MI

Background:

The U.S. Department of Interior, National Park Service (NPS) has completed an environmental assessment (EA) that analyzes the potential environmental effects of a proposal to implement an oral rabies vaccination (ORVAC) program at several park units (listed above) within three states (Indiana, Michigan, and Ohio) in the NPS Midwest Region to stop the spread of specific raccoon (*Procyon lotor*) rabies variants or “strains” of the rabies virus. The EA analyzed a number of environmental issues or concerns with the oral rabies vaccine and activities associated with the program.

The proposal analyzed in the EA would distribute ORVAC baits at the above-listed park units to support and cooperate with various state agencies (i.e., health departments, agriculture departments, and wildlife agencies), and the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service, Wildlife Services (APHIS-WS) in their ongoing efforts of eliminating or stopping the forward spread of raccoon rabies in the eastern U.S. The primary goals of the program are to: 1) stop the forward advance of the raccoon strain of the rabies virus from areas where they now occur by immunizing portions of target species populations along the leading edges of the rabies fronts; and 2) reduce the incidence of rabies cases involving wild and domestic animals and rabies exposures to humans in the areas where the ORVAC programs are conducted. If the ORVAC program is successful in stopping the forward advance of these strains, then the ultimate goal could include elimination of these rabies variants.

The ORVAC program will reduce the possibility of humans and animals becoming infected with the raccoon variant of the rabies virus and will support the states of Indiana, Michigan, and Ohio in the effort of reducing or eliminating this strain of the virus from the eastern U.S. Currently, cooperative rabies vaccination programs are being conducted on various land classes in each of the aforementioned states in addition to numerous other states in the eastern U.S.

Selected Alternative

Based on the analysis presented in the EA, the NPS has selected Alternative 1, the preferred alternative, for implementation. By implementing Alternative 1, the NPS will authorize the inclusion of several park units within Indiana, Michigan, and Ohio in the ongoing ORVAC program in the eastern U.S. to create zones of vaccinated target species that would then serve as barriers to eliminate and/or cease the further advancement of raccoon rabies virus variants. Vaccination zones will be determined in cooperation with state rabies task forces, state health departments, and/or other agencies with jurisdiction over vaccine use and application in wildlife and domestic animal species. The program will involve use of APHIS-WS federal funds to purchase and distribute ORVAC baits.

On an annual basis, one treatment of ORVAC baits will be distributed by aircraft (fixed-wing airplane or helicopter) and ground placement on various park units within the ORVAC project area. The need to distribute baits on each of the parks will be assessed annually and based on the most current distribution of rabies cases and the expected direction of disease spread. The treatment will continue on a recurring basis until the goals of the ORVAC program have been met. Baits will be distributed at an average density of 75 per square km during the spring and/or fall months (March 1-May 31 and/or August 15 to November 30). Air drops typically will be conducted at about 500 feet above ground level and will only fly momentarily over any one point on the ground during any given bait distribution flight. The aircraft do not circle over areas repeatedly, but fly in straight "transect" lines for purposes of bait distribution. Oral rabies vaccine baits will not be aerially distributed in areas that are frequently used by a high volume of park visitors (i.e., visitor centers, campgrounds, etc.), as well as over lakes, reservoirs, and large rivers. Aerial distribution of baits will primarily target areas of habitat suitable for the target species. When aerial distribution by fixed-wing or helicopter aircraft is not practical, baits will be distributed by careful hand placement to help to minimize contact by humans, pets and other domestic animals.

No cumulative impacts are anticipated from the distribution of ORVAC into the environment. The ORVAC vaccine and bait that will be used has been found safe for use on raccoons and other animal species, has a negligible 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 will be distributed one time per year, thereby limiting the potential for persons to be exposed to ORVAC bait or to bait distributing equipment.

Alternatives Considered

In addition to the selected alternative, one other alternative, No Action, was analyzed in detail in the EA. The no action alternative would preclude the NPS from any involvement in an ORVAC program at various NPS units within the three aforementioned states. However, APHIS-WS, involved state agencies, and rabies task forces would continue the ORVAC program on lands not managed by the NPS. The No Action alternative does not meet project objectives for several reasons: 1) the NPS would not assist the three previously-mentioned states in stopping the forward advance of the raccoon strain of rabies in the eastern U.S.; 2) the NPS would not assist the states in reducing the incidence of rabies cases in wildlife and domestic animals and rabies exposures to humans; and 3) the NPS would not aid in enhancing the effectiveness of the

national program. If baiting programs were conducted around large land masses such as NPS units, reservoirs of the virus would likely still exist, creating holes in the program and potentially making the program less effective at stopping the forward advance or eliminating the raccoon strain of the rabies virus.

Four alternatives were originally considered, but not analyzed in detail, and are described as follows:

An ORVAC program with animal specimen collections for monitoring purposes: this alternative would involve the implementation of an ORVAC program similar to the selected alternative, but would also include the collection of wild animal specimens from NPS lands for monitoring and project evaluation purposes. A variety of live capture or lethal methods would be used including shooting, leghold traps, cage traps, foot snares, and wire cable neck snares. The state ORVAC programs within Indiana, Michigan, and Ohio collect wild animals for monitoring purposes in other areas of each of these states. However, these state ORVAC programs have determined that it would not be necessary to collect wild animals for monitoring purposes on NPS units located in these three eastern states at this time or within the foreseeable future. For this reason, this alternative was not considered further.

Live-capture-vaccinate-release programs: this alternative would involve the live capture of raccoons followed by administration of rabies vaccines by injection and release back into the wild. This strategy has been used in certain localized areas for reducing the incidence and spread of rabies in raccoons and skunks. Currently, no vaccine is specifically licensed for this type of use. However, certain injectable vaccines may be used "off-label" under the direction of veterinarians to vaccinate wild animal species in certain situations. This method generally results in a higher percentage of a raccoon population being vaccinated than ORVAC, but takes much longer to accomplish in a given area. For these reasons, this alternative was not considered further.

Depopulation of raccoons: this alternative would result in the lethal removal of raccoons throughout the zones where outbreaks of this variant of rabies virus is occurring or is expected to occur. The goal would be to achieve elimination of the raccoon rabies strain by severely suppressing populations of raccoons over broad areas so this specific variant of rabies could not be transmitted to other susceptible members of the same species. This could theoretically stop the forward advance of the disease and potentially result in elimination of the raccoon rabies variants since infected animals would 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 undoubtedly be opposed by most members of the public as well. For these reasons, and because depopulation of the raccoon species would be considered inconsistent with the NPS mission, this alternative was not considered further.

Employ other types of ORVAC instead of the V-RG vaccine: under this alternative, NPS would use or authorize the use of a "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 ORVAC baits. 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

ORVAC form (e.g., “killed” virus vaccines), and none are currently licensed or approved for any such use in the U.S. For all of the above reasons, this alternative was not considered further.

Environmentally Preferred Alternative

As described in Section 3.4 (pg. 43) of the EA, the selected alternative is also the environmentally preferred alternative. The selected alternative is believed to be the least environmentally intrusive alternative available for achieving the goals of eliminating and stopping the forward advance of the raccoon strain of the rabies virus in the eastern U.S. and reducing the incidence of rabies cases involving wild and domestic animals and rabies exposures to humans. The selected alternative surpasses the other alternative (no action) by recognizing the range of national environmental policy goals as stated in Section 101 of the National Environmental Policy Act. The selected alternative integrates “...safe, healthful...surroundings” with resource protection.

Mitigation Measures

A number of key mitigating measures are currently part of the standard operating procedures of state-operated ORVAC programs and will be used as part of the ORVAC program on NPS lands. These include:

- Public information and education actions and media announcements to inform the public about ORVAC bait distribution activities before they occur.
- Toll-free telephone numbers advertised in the media and on web sites for people to call for answers to questions.
- In the unlikely event of an adverse vaccinia virus exposure in humans, the CDC can make vaccinia immune globulin available to a state on a case-by-case basis to provide a level of additional assurance that such a reaction will be successfully treated.
- Training of bait distribution navigators to avoid dropping baits on people, structures, and large bodies of water (lakes, reservoirs, rivers). During aerial bait drop operations, the bait dispensing equipment is temporarily turned off over large bodies of water, human dwellings, and when people are observed below. Every effort will be made to drop baits during off-peak visitor use at NPS units.
- ORVAC baits will not be distributed by aircraft within 1/4 mile of water bodies to reduce the potential of baits entering the water source.
- Adherence of aircraft to air safety standards.
- Training of personnel in hand distribution of baits to avoid properties with greater risk of human or pet encounters with baits.

- Labels are affixed to each ORVAC bait instructing persons not to disturb or handle them and contain a toll-free telephone number to call for further information and guidance in the event of accidental exposure to the vaccine.
- Education campaigns by state and local health departments, the CDC, APHIS-WS, Cornell and Tufts Universities, and others are already occurring in conjunction with the ORVAC program to teach the general public about rabies prevention.

The Communication Planning Team, part of the Rabies Management Team, is developing a means to enhance interaction with the public on ORVAC, including web site creation. However, an immediate charge for this team is to bring together all key interests including raccoon hunters, dog trainers, rehabilitators, nuisance wildlife control operators, and agency personnel to seriously address translocation of rabies reservoir species, which could jeopardize national efforts to control terrestrial variants of rabies. Translocation of raccoons from the southeastern U.S. to western Virginia and West Virginia in the late 1970s was the probable origin of the epizootic in the mid-Atlantic region that had not formerly experienced raccoon rabies.

Consideration of the Significant Criteria

As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts.

The ORVAC vaccine and bait that will be used has been found safe for 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 will be distributed one time per year, thereby limiting the potential for persons to be exposed to an ORVAC bait or to bait distributing equipment. In addition, positive health benefits to the public and target and nontarget animal populations will occur through decreased risk of exposure to rabid animals.

Degree of affect on public health or safety

The selected alternative will pose minimal impact to public health and safety. Of more than 55 million baits distributed since 1990, few (10) minor injuries and no significant injuries to any member of the public are known to have resulted from ORVAC programs. Adverse health effects from vaccinia associated with ORVAC have been minimal with no significant long-term effects expected. Positive health benefits to the public will occur through decreased risk of exposure to rabid animals.

Unique characteristics of the geographic area (such as proximity to historic or cultural resources, wild and scenic rivers, ecologically critical areas, wetlands or floodplains)

As described in the EA, no effects to natural or cultural resources were identified for the selected alternative. No prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas will be adversely affected.

Degree to which impacts are likely to be highly controversial

Positive health benefits to the public will occur through decreased risk of exposure to rabid animals. The adverse effects of involvement by the NPS in ORVAC programs on the quality of the human environment will be negligible. Thus, the effects of the selected alternative are not highly controversial.

Degree to which the potential impacts are highly uncertain or involve unique or unknown risks,

Based on the analysis documented in the EA, the adverse effects of involvement by NPS in ORVAC programs on the human environment will be negligible. The risk and potential severity of adverse effects from rabies exposures in humans would probably be greater without ORVAC programs than would be the risk of serious adverse effects from vaccinia virus infections with ORVAC programs. The effects of the selected alternative are not highly uncertain and do not involve unique or unknown risks.

Whether the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration

The selected alternative is part of an ongoing national rabies management program that currently encompasses 26 states. By participating in this program, the NPS will be adding to its effectiveness. The NPS typically coordinates with states in carrying out state wildlife programs on NPS lands; therefore, by participating in rabies management the NPS will not be setting a precedent. For these reasons, the selected alternative will not establish a precedent for any future action with significant effects.

Whether the action is related to other actions that may have individual insignificant impacts but cumulatively significant impacts

No significant cumulative effects on the quality of the human environment were identified in the EA. Cumulative effects analyzed in the EA were negligible.

Degree to which the action may adversely affect historic properties in or eligible for listing in the National Register of Historic Places, or other significant scientific, archeological, or cultural resources

The selected alternative will not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor will they cause the loss or destruction of significant scientific, archeological, or cultural resources. ORVAC activities described under the selected alternative do not cause ground disturbance, do not cause any physical destruction or damage to property, do not cause any alterations of property, wildlife habitat, or landscapes, and do not involve the sale, lease, or transfer of ownership of any property. In general, such methods also do not have the potential to introduce visual, atmospheric, or audible elements to areas in which they are used that could result in effects on the character or use of historic properties. Therefore, the methods that will be used under the

selected alternative are not generally the types of activities that would have the potential to affect historic properties.

Degree to which the action may adversely affect an endangered or threatened species or its habitat

An evaluation of the selected alternative and its effects on T&E species in the EA determined that no major adverse effects will occur to such species, nor will there be any impact on critical habitat for any listed species. Both the USFWS and relevant state wildlife agencies reviewed the proposed ORVAC program and concurred that the program is not likely to adversely affect any T&E species or their critical habitats.

Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment

The selected alternative will be in compliance with all federal, state, and local laws imposed for the protection of the environment.

Impairment

In addition to reviewing the list of significance criteria, the NPS has determined that implementation of the proposal will not result in the impairment of any critical resources or values of the parks under consideration. This conclusion is based on a thorough analysis of the environmental impacts described in the EA, the public comments received, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in NPS Management Policies. Overall, the selected alternative results in benefits to park resources and values, opportunities for their enjoyment, and it does not result in their impairment.

Public Involvement

Public scoping was conducted from September 2, 2005 to October 4, 2005. Letters were directly mailed to 266 individuals, organizations, agencies, tribes, and municipalities through NPS park-specific and APHIS-WS mailing lists. Press releases were also issued by several parks to the media. From the nine comments received during scoping periods for this EA, comments received on previous ORVAC EAs, plus interactions and input received from those involved with the national ORVAC program, the following issues were identified for consideration in detail in the EA:

- Potential for adverse effects on people that become exposed to the vaccine or the baits.
- Effects of the ORVAC V-RG vaccine on raccoons.
- Potential for adverse effects on non-target wildlife species, including threatened or endangered species.
- 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.

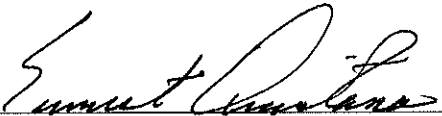
- Potential for the V-RG virus to recombine with other viruses in the wild to form new viruses that could cause disease in humans or animal
- Potential for aerially dropped baits to strike and injure people or domestic animals.
- Potential effects on NPS wilderness areas
- Potential impacts on visitor use/experience

In addition to the identified major issues considered in detail, 13 other issues were considered but dismissed from detailed analysis in the EA. The EA was made available for public review and comment from December 6, 2005 to January 17, 2006. No responses were received during the EA review period, and therefore no changes were made to the text of the EA.

Conclusion

The NPS has selected Alternative 1 for implementation. The selected alternative does not constitute an action that normally requires preparation of an environmental impact statement (EIS). The selected alternative will not have a significant/major effect on the human environment. Negative environmental impacts which could occur are minor or moderate in intensity. There are no significant/major impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the selected alternative will not violate any federal, state, or local environmental protection law. Based on the foregoing, it has been determined that an EIS is not required for this action and thus will not be prepared.

Approved:



Ernest Quintana
Midwest Regional Director

2-15-06

Date