

**UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
WILDLIFE SERVICES**

**SUPPLEMENT TO ORIGINAL ENVIRONMENTAL ASSESSMENT
FOR MANAGEMENT OF PROPERTY DAMAGE AND POTENTIAL THREATS TO PUBLIC
HEALTH AND SAFETY CAUSED BY WOODCHUCKS AT [REDACTED], A [REDACTED]
[REDACTED] RESIDENTIAL COMPLEX, [REDACTED], NH**

Prepared by: Marsha Barden and John McConnell
91A North State Street
Concord, NH 03301-4334

Reviewed by: Dennis Slate
State Director NH/VT
91A North State Street
Concord, NH 03301-4334

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INTRODUCTION

The U.S. Department of Agriculture (USDA) is directed by Congress to protect American agriculture and other resources from damage associated with wildlife. The primary authority for the Wildlife Services Program (WS) is the Animal Damage Control Act of March 2, 1931, as amended (46 Stat. 1468; 7 U.S.C426-426b) and the Rural Development, Agriculture and Related Agencies Appropriations Act of 1988 (P.L. 100-202). WS (formerly Animal Damage Control [ADC]) activities are conducted in cooperation with other federal, state and local agencies; and private organizations and individuals.

The WS program uses an Integrated Wildlife Damage Management (IWDM) approach (sometimes referred to as IPM or "Integrated Pest Management") in which a series of methods may be used or recommended to reduce wildlife damage. IWDM is described in Chapter 1 of the ADC Program Environmental Impact Statement. These methods include the alteration of cultural practices as well as habitat and behavioral modification to prevent damage. Controlling wildlife damage sometimes requires that the offending animal(s) be killed or that populations of the offending species be reduced. Potential environmental impacts resulting from the application of various control techniques are evaluated in this Environmental Assessment (EA).

PURPOSE AND NEED

██████████ is charged with the operation and maintenance of ██████████, a ██████████ residential complex located on ██████████, New Hampshire. ██████████ has requested help from WS with problems caused by a large local population of woodchucks (*Marmota monax*). Concerns include:

- 1) potential for transmission of rabies from woodchucks to humans or pets,
- 2) actual and substantial property damage to asphalt walkways and wooden staircases, creating a hazard that has resulted in human injury and
- 3) actual and substantial damage to ornamental plants.

██████████ encompasses thirty-one buildings in close proximity with four living units in each building. In addition to the adult residents, the complex houses about two hundred young children and numerous pet cats. Enclosed wooden stairways and lawns of grass and clover provide good habitat for woodchucks (Wright 1985). The areas for burrowing under the staircases were unwittingly created when PHA attempted to address a safety issue of crumbling concrete stairways by enclosing them in wood. Most of the staircases now have two woodchuck burrow entrances, one on each side. There exists a serious potential for conflict between humans, pets and woodchucks. When young children play outside in the summer, the time of greatest activity for woodchucks, they play close to the stairs to their apartment. That is also the area frequented by pet cats.

Woodchucks have been known to share burrows with raccoons (Butterfield 1954) and have been verified as carriers of rabies in New Hampshire. Most recently, a woodchuck tested positive for rabies in ██████████

██████████ in October 1998 (Rabies Monthly Report 1998). Two woodchucks in 1993 and one woodchuck in 1995 tested positive for rabies in ██████████. Two cats tested positive for rabies in ██████████ in 1998. Twenty-nine other animals also tested positive for rabies in ██████████ in 1998, twenty-seven of them raccoons, skunks or foxes, all animals that may share dens with woodchucks. These numbers indicate a renewal of rabies activity in ██████████, up from twelve positives from January 1 through November 30, 1997 to thirty-two positives for the same period in 1998. Regionally, from January through September 1998, positive tests for rabies in woodchucks have been reported from Massachusetts (17), Connecticut (5), Vermont (1), Maine (1) and Rhode Island (1) (USDA, APHIS, Veterinary Services 9/98).

Reported cases of rabies in rodents and lagomorphs increased dramatically in the U.S. during the period 1985 to 1994. Of these cases, 95% (n = 317) were woodchucks; all of them spillovers from the raccoon rabies variant. Until 1985, reported cases of rabies in rodents were rare and post exposure treatment of humans after contact with rodents was rarely recommended. Small rodents rarely survive the bite of a rabid animal to become carriers. However, woodchucks are large rodents that can and do survive attacks by rabid animals and become infected with the virus. Rabid woodchucks can exhibit aggressive behavior and initiate unprovoked attacks. The Centers for Disease Control advises that transmission of the rabies virus from woodchucks to humans and pets is possible and that the need for post exposure treatment must be evaluated by local health authorities on a case by case basis (Childs et al. 1997).

The presence of woodchucks in large numbers in the dense human population of ██████████ presents the possibility of exposure of residents, particularly the young children, to rabies, either directly from woodchucks or through contact with unvaccinated pet cats that have interacted with woodchucks. The New Hampshire state veterinarian has characterized the situation at Gosling Meadows as an “emergency public health hazard (McGinnis).”

Exacerbating the situation is the fact that the woodchucks at Gosling Meadows have become habituated to human presence, in part as a result of some residents having fed them in the past. The woodchucks are unusually fearless and will readily approach people. With or without the issue of disease transmission, bite injuries to humans or pets are a concern.

Extensive woodchuck burrowing has undermined asphalt walkways, causing them to collapse in some spots, and has compromised the structural integrity of the staircases. These types of damage have already caused human injury and leave ██████████ facing the issue of liability and costly lawsuits.

A third type of damage caused by woodchucks is substantial feeding on and destruction of ornamental plantings.

Preliminary Field Visit:

██████████ and John McConnell, of WS in New Hampshire, met with ██████████ on June 30, 1998 to provide technical assistance and discuss potential direct control and training options that WS can provide to assist in reducing health and safety threats and property damage by woodchucks at this

site. The number of active woodchuck burrows under staircases and under shrubs and plants in close

proximity to the residences was estimated at 100. Two cats were observed entering and exiting burrows, confirming the probability that cats and woodchucks interact, providing opportunity for exposure of cats to diseases woodchucks may be carrying.

The following objectives and actions to resolve conflicts between humans and woodchucks at [REDACTED] were agreed upon by [REDACTED] and WS: 1) permanent prevention of woodchuck access close to living areas by enclosure of staircases and walkways, 2) reduction of seasonal movements of woodchucks in and out of the residential area by upgrading the perimeter fence, 3) reduction of the immediate threat to the residents by reducing the population of woodchucks living within the [REDACTED] complex and 4) change in human behavior to reduce the probability of recurring conflicts with woodchucks by educating the residents about the negative consequences of feeding woodchucks and other wildlife within [REDACTED].

Fall or early spring trapping would be optimal because fewer woodchucks would have to be removed, young would not be left in the natal dens, the scarcity of food would make bait more attractive and with children in school there would be a reduced risk of contact between children and trapped animals. Public response to the proposed project through the media and telephone expressed a desire to relocate live-trapped woodchucks. [REDACTED] chose to further examine the trapping and translocation alternative and postpone the starting date of the project.

After the original announcement of this project, WS received and analyzed many expressions of support for and opposition to the proposed action. That concerned citizens have differing views regarding the proposed action is acknowledged. Woodchucks have ecological and esthetic value. They also can cause substantial damage and pose a threat to health and safety. Opposition focused on 1) the choice of lethal control rather than translocation and 2) the method of euthanasia. As a result of this public involvement, we have expanded the EA to explain in greater detail the rationale supporting the decision making process. References and data have been added to support and explain the need for the project, the alternatives considered and the choice of methods. This supplement to the original EA is a clarification to better describe alternatives and consequences and to define responsibilities.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations requires Federal agencies to analyze disproportionately high and adverse environmental effects of proposed actions on minority and low-income populations. WS has analyzed the effects of the proposed action and determined that implementation of the preferred alternative would not have adverse human health or environmental impacts on low-income or minority populations.

ALTERNATIVES INCLUDING THE PROPOSED ACTION

Alternatives were developed for consideration using the ADC Decision Model as described in Chapter 2 (pp 2-20), Appendix Q, and Appendix T (USDA 1994).

Alternatives Considered:

Alternative 1. No New Action: The present method to reduce woodchuck activity is enclosure of less than five of the staircases by blacktop aprons. Under this alternative, no new actions, lethal or non-lethal, would be employed by WS to decrease the attractiveness of the site to woodchucks, to lessen the possibility of contact among woodchucks, pets and humans (exclosures), or to decrease the local population of woodchucks. If WS does nothing, [REDACTED] has indicated they plan to eventually close off access to areas underneath staircases and repair the perimeter fence which delineates housing complex grounds from adjacent wooded and marsh areas along three sides. All enclosure activities would be ongoing throughout the summer and fall of 1999. Woodchucks wintering in the adjacent wooded area would still have access to established burrows under staircases prior to [REDACTED] completing enclosure activities and via the entrance to the complex, as it is impractical to make this a gated community. Exclosures will not be installed prior to woodchucks inhabiting burrows under staircases, access will remain from the complex entrance and staircase exclosures cannot be installed until verifying that the burrows are uninhabited. [REDACTED] expressed intentions to eventually install exclosures will require as part of the long range solution a reduction of the local population within the complex, as burrows under staircases would be occupied prior to the completion of enclosure activities.

Alternative 2. Habitat Modification/Management: Isolated bushes that provide hiding cover for woodchucks moving between staircases and grass areas would be removed to make the habitat less attractive. Grass type or height would be changed. [REDACTED] would be responsible for completing habitat modifications.

Alternative 3. Barriers:

a) Areas underneath staircases would be closed off with permanent materials such as 14 gauge coated 1" by 2" welded poultry wire to prevent woodchucks from accessing them.

In an attempt to close off access to burrows under staircases, PHA previously skirted some stairway and walkway areas with blacktop asphalt paving material. Woodchucks have a preference for burrowing next to structures such as root collars of trees, rocks, buildings, and other large and solid objects (Wright 1985) and they have already compromised some of the paved blacktop areas by burrowing beside and through them. A more permanent method of enclosure would entail installation of buried L-shaped mesh wire barriers around each stairway (Bollengier 1994, Hodge 1990). This is part of a long-term strategy to reduce the woodchuck-human conflict. Given the number of stairways to be modified, this alternative will require a substantial commitment of time, labor and money to achieve. [REDACTED] has expressed its intention to complete this enclosure.

b) Perimeter fencing that has become degraded would be repaired and improved.

In addition to the buried wire mesh exclosures around the staircases, chain link perimeter fence would be upgraded with similar buried L-shaped wire mesh to reduce woodchuck movement between the hillside winter denning area behind the buildings and the short grass of the residential area, and between the marshy area and the adjoining playground. [REDACTED] would be responsible for installing exclosures under staircases and upgrading the perimeter fence.

Alternative 4. Shooting: WS would be responsible for shooting free ranging woodchucks. Although it can be a cost-efficient and effective method of reducing local populations of woodchucks in some instances (Bollengier 1994), it would be illegal, unsafe and unacceptable to discharge a firearm at [REDACTED],

given the density of people and pets in this urban area. Therefore, shooting is not a acceptable alternative under these circumstances.

Alternative 5. Trapping: Woodchucks can be legally trapped with the use of leg-hold, conibear or cage traps. Trapping with one or more of these devices and removal of trapped woodchucks would reduce the local population over a period of weeks and would provide relief as a first step toward resolving the conflict while work progresses toward completion of the enclosure fencing. The presence of many young children and pet cats precludes the use of all types of traps except cage traps. Even the use of cage traps would require close monitoring by WS personnel to prevent contact between residents and captured woodchucks.

Alternative 5a. Trapping and Translocation: Under this alternative, woodchucks would be live-trapped and translocated off site by WS personnel for release.

Since 1993, when the mid-Atlantic strain of rabies (“raccoon rabies”) reached New Hampshire, NH WS has followed the policy supported by the NH Fish & Game Department and State Veterinarian Clifford McGinnis to refrain from translocating animals that can carry rabies, and to discourage others from doing so. No New Hampshire state law expressly prohibits the translocation of woodchucks.

As cited in an ADC Directive 4.097 (1991), the AVMA, the National Association of State Public Health Veterinarians and the Council of State and Territorial Epidemiologists oppose relocation of mammals because of the risk of disease transmission among wild animals. The directive further advises that translocation of wild animals is not a biologically sound practice in many situations. In addition to the issue of disease transmission, the environment into which the animals are introduced may be adversely affected.

Studies of translocated raccoons indicate that translocated animals are often stressed, lose weight, are subject to territorial disputes and have low survival rates (Rosatte 1989, Hagen 1990). One study of raccoons translocated in Kentucky found that the probability of raccoons translocated in the spring surviving until November was less than 10% (Wright 1977). Woodchucks, animals that are completely dependent on a familiar burrow system, may be even more vulnerable to the adverse effects of translocation.

Experts in translocation of wildlife are clear on the conditions under which translocation may be undertaken. Translocation is not to be undertaken lightly or by the inexperienced. There must be a valid reason for moving the animal, such as endangered species recovery. The technique chosen must provide for the safety of the animal. This involves knowledge of the animal’s behavior and physiology on the part of the capturer. The animal must be known to be in good health. The environment into which the animal will be introduced must be suitable in type and in availability for that species (Frampton and Webb 1974). There must be the assurance that the animal can be monitored constantly until it is fully recovered from the physical or chemical restraint. Stress during capture too frequently

leads to death of the animal 3 or 4 days post capture. Whenever humans physically or chemically capture a wild animal, they must assume responsibility for the life of that animal (Wildlife Restraint Series 1991).

WS personnel involved in this project have been certified in wildlife restraint and safety by the U.S. Fish and Wildlife Service and several have professional experience dealing with captive wildlife. These wildlife professionals are aware of the many possible problems involved in immobilizing and/or moving wild animals and would not recommend translocation as a means of solving this problem.

“Translocation of free-ranging, wild animals is a complicated, costly and often overrated wildlife management technique, which may jeopardize the animals involved and adversely affect the environment into which they are introduced. While translocations appears [sic] to have great public and political appeal, they are best limited to situations where the purpose is justified and the benefits of a successful translocation clearly outweigh the difficulties and expense of its execution (Nielsen and Brown 1988).”

Runde and Millsap (1994) found that translocated raccoons and foxes posed a real threat of disease and parasite transmission and frequently caused nuisance problems in the new location. They had no data on the results of translocating other common species. However, they advised that clinical exams including screening for parasites and pathogens and blood tests should be administered before releasing any animals and that unhealthy individuals should not be released. In addition, they advise that any such releases be viewed as experimental and that the recipient populations should be monitored. There is also a concern that public lands not become dumping grounds for nuisance wildlife (Craven 1992).

Because no studies have been conducted on translocating woodchucks, there is no evidence that this would be a humane and useful technique. For all the above reasons, trapping and translocation is rejected as an option.

Alternative 5b. Trapping and Euthanasia: Live-trapped woodchucks would be taken to a location off-site and euthanized according to a method approved as humane by the AVMA. Options include: CO₂ chamber, chemical euthanasia and shooting of trapped animals (Report of the AVMA 1993).

In choosing the best method of euthanasia for woodchucks, a prey species that spends only very short periods at a time above ground, reducing stress is an important factor. The most humane method(s) of euthanasia limit handling of the animals and minimize the interval of confinement in traps between capture and death.

CO₂ has been used with some success to euthanize woodchucks. It is fairly quick, although not instantaneous, but is only minimally effective to ineffective with very young woodchucks (Report of the AVMA 1993). If trapping is conducted in March, before the

young are born, or in September, when the young are nearly grown, this problem would be minimized.

In successfully resolving a marmot damage problem in Idaho, the Humane Society of the United States (HSUS) participated in a WS project by monitoring live-trapping and euthanasia by carbon monoxide. WS subsequently switched to CO₂, which is less volatile (Bangerter 1995).

It should be noted that ██████████ in Grafton, MA has switched from CO₂ to other methods of euthanasia with certain animals because of the inconsistency of response to this method by individual animals (Gillin). Some individuals have a high tolerance for CO₂ and require an unacceptably long period to lose consciousness. High concentrations of CO₂ induce unconsciousness more quickly, but may cause initial discomfort. The AVMA report (1993) warns that incomplete filling of a CO₂ chamber may permit some animals to climb above the CO₂ and to survive, which is very distressing to the animal. The report also states that rabbits, cats and swine are species that appear to be distressed by CO₂ euthanasia, and other methods are therefore preferred for these species.

Some euthanizing drugs such as sodium pentobarbital are controlled substances and must be administered by a licensed veterinarian. Others are available to certified WS personnel. To act quickly and humanely, euthanizing drugs are best administered intravenously or intracardially. It is very difficult to locate veins in a wild animal such as a woodchuck (Gillin), so cardiac puncture is the method of choice for euthanizing by chemical injection. Woodchucks would have to be physically restrained in a squeeze cage or wire mesh cone in order to anesthetize them prior to cardiac puncture (Gillin 1998, Wright 1985). Additional handling creates more stress in captured wild animals and increases the danger of injury to the handler (Wildlife Restraint Series 1991).

Gunshot to the head of trapped animals is instantaneous and is often used as the method of choice for field work, but may be perceived as violent and inhumane by the public. A combination of anesthesia and shooting might resolve some of the public opposition to this method. However, while it might make critics of shooting more comfortable, anesthesia would require additional handling, which could add to the stress of the woodchucks.

WS personnel would be responsible for conducting and monitoring all live-trapping activities. WS personnel would be responsible for conducting and ensuring completion of euthanasia and carcass disposal procedures in accordance with AVMA approved methods.

Alternative 6. Gas Cartridge: Gas cartridges would be ignited in burrows that are verified to be occupied by woodchucks and that are located at a safe distance from the residences.

The gas cartridge is a flare-style device that is used in burrow systems to kill rodents by rapid asphyxiation through inhalation of carbon monoxide gas produced from an ignited cartridge. This device is EPA registered (EPA Reg. No. 56228-2) for control of woodchucks. It is registered for use in NH. Carbon monoxide and other gases produced from ignited cartridges would escape through below ground crevices or quickly dissipate into the atmosphere, not accumulate in the soil and have no negative cumulative effect to residents, pets or wildlife in the area. No secondary effect to non-target animals interacting with animals euthanized by gas cartridge would occur. This control option is effective in killing woodchucks that are in burrow systems, but only where fire is not a concern. There is a risk of killing non-target species that may be using woodchuck burrows. Gas cartridges would be used only when the burrow occupant has been

visually verified to be a woodchuck. Burrows not positively identified to be inhabited by a woodchuck through visual identification would not be treated with a gas cartridge. Fire extinguishers would be kept at the burrow site during treatment by gas cartridge. WS personnel would be responsible for the use of gas cartridges.

Alternative 7. Integrated Management:

This proposed strategy is a combination of alternatives 3, 5b and 6. Under this alternative, WS would recommend this combination of methods which provide an integrated strategy to reduce the threats to humans and pets from woodchucks, reduce damage and to prevent their recurrence. The long-term recommendation would be to physically exclude woodchucks from areas underneath staircases where they are most likely to come in contact with residents and to upgrade perimeter fencing to reduce the recolonization of [REDACTED] once the local woodchuck population has been suppressed (Alternative 3). The initial strategy would be to suppress the local woodchuck population by a combination of live-trapping with humane euthanasia (Alternative 5b) and gas cartridges (Alternative 6), use to be limited to locations only where target animals have been clearly identified and fire is not a likely safety concern. WS personnel will advise [REDACTED] on designs for permanent enclosures around staircases and perimeter fencing. Enclosures would be installed by [REDACTED] maintenance personnel or private contractors.

The decision on method use at each burrow would be determined by protocol established through consultation between WS personnel and [REDACTED] staff. Under staircases, one woodchuck burrow entrance might be blocked and at another entrance a cage trap might be fitted with a telescoping funnel if necessary to direct the woodchuck into the trap. Traps would not be left untended for more than two hours, and would be monitored by WS personnel, who would promptly remove captured animals from the site. Euthanizing by AVMA approved methods would be carried out in a separate location. Gas cartridges would be ignited in designated burrows after visual verification that the burrow is occupied by woodchucks and after all secondary entrances have been filled with soil, sod, or other appropriate cover. Immediately following ignition of the cartridge the primary opening would be closed to contain NO₂, CO₂ and other gaseous fumes.

Trapping and use of gas cartridges would be conducted for two weeks and the results evaluated by surveying the amount of continued woodchuck activity as indicated by new or reopened burrows within [REDACTED]. If necessary, trapping and the use of gas cartridges would continue for an additional one to two weeks.

ENVIRONMENTAL CONSEQUENCES

Alternative 1. No New Action. This alternative would allow the woodchuck population to increase to biological carrying capacity, resulting in continued or increased potential for human-woodchuck interaction and possible exposure to rabies as well as continued structural and property damage. [REDACTED], having been

made aware of the health and safety risks of allowing the woodchuck population to remain at [REDACTED], could be held liable for injuries and illnesses that might result from continued woodchuck activity.

Alternative 2. Habitat Modification/Management. The buildings that woodchucks use as cover are close enough together that removing alternative hiding cover provided by bushes would have only minimal

effect on woodchuck movements and would likely do nothing to limit the woodchuck population growth or reduce the risk to residents. The desirable landscaping for communal residential areas is short grass with trees or shrubs. Changing these components could have other unknown and undesirable effects. For example, longer grass might attract other undesirable animals such as small rodents and snakes.

Alternative 3. Barriers.

Alternative 3a. Enclosures under staircases. This alternative would have no impact other than the desirable one of preventing woodchuck, skunk and cat access to the area underneath the staircases in [REDACTED].

Alternative 3b. Repairing and improving the chain link perimeter fence. The effect of this alternative would be to restrict seasonal and daily movements of woodchucks into and out of the residential area at [REDACTED].

Alternative 4. Shooting. It would be illegal, unsafe and unacceptable to discharge a firearm at [REDACTED], given the density of people and pets in this urban area.

Alternative 5. Trapping. The use of closely monitored cage traps would minimize the possibility of injury to residents, especially children, and pets. As appropriate, traps would be fitted with covers and/or enclosed in tubing to funnel woodchucks into the traps and keep them out of sight and touch. This would also reduce the threat to nontarget species such as cats, which would be released unharmed on site.

Alternative 5a. Trap and Translocate. The positive effects of this alternative would be to temporarily reduce the local population of woodchucks at [REDACTED], relieve the immediate risk of exposure to rabies presented by the current frequency of contact between residents, pet cats and woodchucks and to reduce the burrowing damage that can lead and has led to human injury.

Possible adverse effects of this alternative include stress on translocated woodchucks, spread of zoonotic diseases including rabies by moving animals of unknown health history into a new environment and, because woodchucks are known to be asocial and territorial (Swihart 1992), adverse effects on resident woodchucks in the area of relocation from introducing competitors (Craven 1992, Hagen, Nielsen and Brown 1988, Runde and Millsap 1994).

Alternative 5b. Trap and Euthanize. The positive effects of this alternative would be to temporarily reduce the local population of woodchucks at [REDACTED], relieve the immediate risk of exposure to rabies presented by the current frequency of contact between residents, pet cats and woodchucks and to reduce the burrowing damage that can lead and has led to human injury.

An adverse effect of trapping and euthanasia would be the death of a number of individual woodchucks. Proper timing of the trapping would keep the number of woodchuck deaths to a minimum. The project would involve only the local population of woodchucks that uses [REDACTED]. The removal of individual woodchucks would not threaten the continued existence of the species. Woodchucks would be destroyed as humanely as possible. Lethal management would provide temporary relief while the longer term method of enclosure is being implemented. Some persons are against the use of lethal methods and would oppose this alternative.

Alternative 6. Gas Cartridge. Gas cartridges are discharged below ground. Upon discharge cartridges ignite like a flare and burn quickly. The gas and smoke produced are contained and eventually dissipate below ground. Minimal amounts of smoke that may escape through substrate crevices are quickly dissipated above ground. A fire extinguisher would be kept nearby during the treatment of each burrow in the remote chance that dry grass near the den should catch fire.

Primary Toxicity. Gas cartridges are lethal to most species that may be found in the burrows. Species other than woodchucks that may occupy the burrows at [REDACTED] include: striped skunk (*Mephites mephites*), eastern chipmunk (*Tamias striatus*), raccoon (*Procyon lotor*), and domestic cat. Gas cartridges would be used only after the occupant has been visually verified to be a woodchuck. Where nontarget species are obviously present, gas cartridges would not be used. Residents would be notified of times when gas cartridges would be used and advised to keep pet cats inside. Some persons are against the use of lethal methods and would oppose this alternative.

Secondary Toxicity. Residues present in the target carcasses would not be toxic to predators or scavengers (USDA 1994).

Alternative 7. Integrated Management.

This proposed action adheres to all local, state and federal laws. As indicated by the New Hampshire State Veterinarian (McGinnis), the present rabies exposure risk to residents of [REDACTED] due to the woodchuck activity must be reduced or eliminated. Permanent enclosure of woodchucks from areas of intense human activity by buried wire barriers is the long-term plan to resolve this conflict. To relieve the immediate threat to residents and to reduce the property damage before completion of the enclosure process, site-specific woodchuck population reduction is needed. During capture and euthanasia, woodchucks would be handled as little as possible, transported as short a distance as possible and destroyed as quickly as possible by a method approved as humane by the AVMA. Every attempt would be made to assure that the woodchucks are treated humanely and the carcasses disposed of safely and with respect. This action would affect only the immediate local population of woodchucks that uses the area within [REDACTED]. We expect that, after an initial trapping and euthanasia effort, enclosure and changes in human behavior would prevent the necessity for further lethal control. However, it is possible that the enclosures may need repair and retrofitting and there may be a need to remove some woodchucks in the future. Some persons are against the use of lethal methods and would oppose this alternative.

Summer trapping would not be optimal because the woodchuck population would be at its peak, requiring the removal of a much greater number of individuals. Allowing the growing population of woodchucks to remain at [REDACTED] throughout the summer, especially if enclosures are being installed, causing confusion among the animals being closed out of habitual cover, would allow the risk of exposure to rabies to continue and perhaps increase and would be unacceptable.

No State or Federal permits are required to conduct this alternative. Through consultation with Major Ronald P. Alie, New Hampshire Fish and Game Law Enforcement Department, and in accordance with New Hampshire Fish and Game statute RSA 207:26 woodchucks may be removed from the property by the manager or persons employed by him. Consultation with Michael Amaral, Endangered Species Coordinator, USFWS New England Field Office concluded that activities proposed under this alternative pose no threat to any State or Federally Endangered species.

WS would be responsible for conducting all trapping, monitoring, euthanizing and carcass disposal activities. Only WS personnel would use gas cartridges. WS would advise [REDACTED] personnel on the materials and installation of exclosures. WS would make available in a central location literature to aid residents to understand the adverse effects of feeding wildlife, diseases woodchucks can transmit to humans and habitat requirements of woodchucks. [REDACTED] would be responsible for installing exclosures under staircases and upgrading and maintaining the integrity of the perimeter fence.

In some cases, actions involving removal of wildlife from residential areas may distress local residents who have developed affectionate bonds with individuals through feeding and observing them. WS is aware of this human dimension, has acknowledged this possibility in its decision making process and will ensure euthanasia is performed humanely.

Additional Safety Precautions

Because [REDACTED] is within the area affected with rabies vectored by raccoons, all WS personnel involved in the control project will have had the pre-exposure series of rabies vaccinations. Special precautions will be taken in handling any rabies vector species such as woodchucks, raccoons, skunks and cats. Any suspect animals will be submitted under the State of New Hampshire protocol for rabies testing.

Public Notification

Residents of [REDACTED] have been briefed on the need for control of woodchucks and on the methods proposed. The public has been notified of the intent to conduct this project. A meeting of interested and potentially affected persons has been held to take into account information relevant to successfully completing this project.

In Summary

Whatever the alternative(s) chosen, public education would be an essential component of any management action. Throughout the project, residents will be made aware of precautionary measures for keeping pets and children safe from trapped animals and gas cartridges. As well, they would be provided with leaflets and posters to aid in understanding potential adverse effects of feeding wildlife within residential sites and the role they can play in preventing future conflicts with woodchucks. Material provided would include biology, behavior and habitat requirements of woodchucks as well as information about diseases woodchucks can carry and transmit. Residents would be encouraged to avoid physical contact with free-ranging wildlife and would be informed about the importance of vaccinating pets.

Consultations:

Layne Bangerter, United States Department of Agriculture, WS, Idaho
[REDACTED], United States Department of Agriculture, WS, Vermont

[REDACTED]
Dr. James R. Mason, United States Department of Agriculture, WS, National Wildlife Research Center

**Clifford McGinnis, Doctor of Veterinary Medicine, New Hampshire Department of
Agriculture State Veterinarian
Michael Amaral, Endangered Species Coordinator, United States Fish and Wildlife Service
Ronald P. Alie, Law Enforcement, New Hampshire Fish and Game Department**

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UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
WILDLIFE SERVICES

**FINDING OF NO SIGNIFICANT IMPACT
AND
DECISION**

Management of Property Damage and Potential Threats to Public Health and Safety
Caused by Woodchucks

at [REDACTED], [REDACTED], NH

USDA, APHIS, WS
91A North State Street
Concord, NH 03301

The proposed action is to implement an integrated wildlife damage management strategy for the purpose of reducing potential health and safety hazards caused by woodchuck interaction with residents and pets and property damage from burrowing and feeding woodchuck activity at [REDACTED], a densely populated [REDACTED] housing facility in [REDACTED], New Hampshire. This strategy incorporates exclusion methods, removal of attraction, public education, the selective use of cage traps, euthanasia methods approved as humane by the AVMA and the EPA-registered gas cartridge for rodents.

I have carefully reviewed the attached Environmental Assessment (EA) prepared for this proposal, and it is my determination that the proposed action does not constitute a major Federal action and will not significantly affect the quality of the human environment. As such, an environmental impact statement will not be prepared. Therefore, it is my decision to implement the action as described in the EA. This determination is based on the following factors:

The proposed action and its effects would be confined to [REDACTED] and are not regional or national in scope.

The impact potential of the proposed action to public health would be positive. The control methods selected would not compromise the safety of the public or the individuals conducting the management strategy.

Standard precautionary measures used by WS which include safeguards for pesticide use would minimize uncertain consequences and unknown risks to humans and nontarget wildlife. Historically and architecturally significant buildings would not be adversely impacted.

The effects on the quality of the human environment would not be highly controversial.

This action would not set a precedent for any future actions with significant effects. WS actions not addressed by this EA will be assessed separately.

No significant cumulative effects between this action and others would be expected.

The proposed action would not adversely affect endangered or threatened species or their critical habitats.

All Federal, State and local laws and regulations as well as USDA, APHIS, and WS policies pertaining to environmental protection would be observed.

Additional copies of the EA are available upon request from the WS office identified above.

Gary E. Larson
Director, WS Eastern Region

Date

Attachment:

Management of Property Damage and [REDACTED]
[REDACTED] Meadows, a [REDACTED]
Residential Complex, [REDACTED], NH