FINDING OF NO SIGNIFICANT IMPACT

Field and Captive Studies to Assess the Safety and Efficacy of
Treatment Delivery Methods in Bats

INTRODUCTION: In compliance with the National Environmental Policy Act (NEPA) of 1969, the United States Geological Survey (USGS) prepared an Environmental Assessment for proposed field and captive studies to assess the safety and efficacy of treatment delivery methods in bats.

PROJECT DESCRIPTION: Management of diseases, including white-nose syndrome, in free-ranging bats is a critical step in the ongoing conservation efforts for bats which has experienced a population decline of up 99% at many hibernation sites in the northeastern U.S. Consumption of insects by bats saves farmers billions of dollars in pest control services annually.

Oral vaccine candidates have been developed and jointly tested by the USGS, National Wildlife Health Center and the University of Wisconsin (Madison, WI), but broad treatment delivery is needed to combat the spread of these diseases. Devices developed and tested jointly by the USGS, National Wildlife Health Center and the Palo Alto Research Center will allow for wider distribution of the vaccine formulations across bat colonies.

The selected alternative, Proposed Action – Alternative 1: Up to five (5) captive trials at the National Wildlife Health Center will be conducted over a one-to-two (1 to 2) year period to evaluate the safety and efficacy of various delivery mediums and devices in a controlled setting. Following the completion of captive studies, field trials will begin to test the delivery treatment in free-flying wild bats. Field trials will take place in the states of Minnesota and Wisconsin. Other states that may be selected for field trials are Texas, Nebraska, Colorado, Illinois, Iowa, and Oklahoma. Field trials will be done at selected sites (3-4) that are limited in size (e.g., <3 acres). The primary objective of these studies will be to produce a mass delivery system for treatment of wild bats that could be used to mitigate the effects of diseases, including white-nose syndrome, in North America.

One alternative, Alternative Action – Another Time – Alternative 2: Conduct the field studies at a later time was considered but not chosen. Conducting field studies at a later time will impose considerable delays in obtaining data assessing field safety and effectiveness of delivery methods. There are no practical alternatives to captive studies. The only alternative to field studies would be more laboratory studies but they would not be able to provide an assessment of delivery success that would be obtained in field studies.

ANAYSIS OF ENVIRONMENTAL IMPACT: The selected alternative will have no or negligible long-term impacts on soils, geology, minerals, water quality/quantity, visual resources, air quality, prime and unique farmlands, aquatic resources, vegetation, range, biological, cultural, aesthetic, socio-economic resources, or other environmental concerns (greenhouse gas emissions and hazardous materials).

The State Historic Preservation Offices in the identified states have determined that the proposed field studies will have "no adverse effect" on cultural resources.

The glycerin jelly, also known as glycerol, naturally occurs in foods and animals as a component of triglycerides. It is a common food additive recognized as generally safe by the U.S. Food and Drug Administration with no known carcinogenic, mutagenic, or teratogenic effects. Numerous studies have shown the safety of Rhodamine B as a marker in treatment laden baits. Non-target animals that may encounter small aerosol droplets include rodents, felids, raccoons, and of lesser possibility, birds, and reptiles. Because no attractants will be added to the aerosol, the probability of ingesting the aerosol is low for non-target animals. The devices will only be in place for short windows of time and will be monitored throughout their use in the field.

There is a potential for short-term insignificant environmental impacts because of the capture and handling of identified bats. Bats will be captured using mist nets or harp traps placed near the entrances of caves/mines or roost sites in the evening to capture bats that emerge for nighttime feeding. Bats will be removed from nets/traps within 15 minutes of capture to minimize stress and potential injuries by field technicians who will wear sturdy gloves to remove bats from traps and place bats into cloth or paper bags for holding until processing. Trapping will not occur during inclement weather such as rain or high winds. Based on this information and analysis, the effects of capture and handling of little brown bats and big brown bats from the proposed action will be inconsequential.

FINDING OF NO SIGNIFICANT IMPACT: Following review of the attached Environmental Assessment and all comments received, the USGS concludes that the proposed project is not a major federal action significantly affecting the quality of the human environment within the meaning of NEPA of 1969. Therefore, an Environmental Impact Statement for the field studies to assess the safety of sylvatic plague vaccine is not required.

RESPONSIBLE OFFICIAL

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9/18/2020

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Date