



## FINDING OF NO SIGNIFICANT IMPACT

### Field Studies to Assess the Safety and Effectiveness of White-Nose Syndrome Vaccine Candidates 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 studies to assess the safety of white-nose syndrome (WNS) vaccine candidates in bats.

**PROJECT DESCRIPTION:** Management of 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 developed and tested jointly by the USGS, National Wildlife Health Center and University of Wisconsin (Madison, WI), are intended as a preventative method for controlling WNS in bats. The proposed project involves field studies to assess the safety of WNS vaccine in free-ranging bats.

The selected alternative, Proposed Action - Alternative 1. Up to three small field trials per state will be conducted over a one-to-two (1 to 2) year period to evaluate the safety and effectiveness of the vaccine candidates for bats under field conditions at selected sites in Minnesota, Texas, and Wisconsin. Other states that may be selected for field trials are Nebraska, Colorado, Illinois, Iowa, and Oklahoma. These studies will provide important information regarding the uptake and safety of the vaccine candidates in wild bats in addition to identifying the most effective vaccine. It will also provide a framework and foundation for future studies examining the use and effectiveness of vaccines to prevent wide-spread WNS-induced mortality of bats. The area of impact for the field studies would be limited in size (less than 3 acres/site) and have restricted access.

Two alternatives were considered but not chosen. (1) Conduct the field studies at a later time. (2) Conduct the field studies in other locations. Conducting field studies at a later time will delay future studies on field efficacy of WNS and its subsequent use as a management tool for conservation. Selecting other locations will delay the field studies due to additional time spent identifying suitable colonies, obtaining necessary permissions, and holding public meetings.

**ANAYSIS OF ENVIRONMENTAL IMPACT:** The selected alternative will have no or negligible long-term impacts on earth, biological, water, air, cultural, aesthetic, socio-economic resources, or other environmental concerns (greenhouse gas emissions and

hazardous materials).

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. Non-target animals that may encounter vaccine-laden jelly include rodents, felids, raccoons, and of lesser possibility, birds and reptiles. Because no attractants will be added to the jelly, the probability of ingesting the jelly is low for non-target animals.

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

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. Captured bats will be handled for less than five minutes and then released. Trapping will not occur during inclement weather such as rain or high winds. Field technicians will remain at or near the trapping site while nets/traps are in place to ensure animals are released. Based on this information and analysis, the effects of capture and handling of 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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Date