

U.S. Fish & Wildlife Service  
White-Nose Syndrome Management:  
Report on Structured Decision Making Initiative

Questions and Answers

November 2009

**1. What is the purpose of the white-nose syndrome structured decision making report?**

The White-Nose Syndrome Management report answers the question, "What management measures should be taken this year to control the spread and minimize the effects of WNS?"

We used a structured decision making (SDM) process to develop the best possible guidance for the short-term management of WNS in the geographic area that is distant from any known occurrence of the disease, but that we consider to be susceptible to its arrival and spread. Because this area is defined by a distance more than 250 miles from any known affected site, the occurrence of WNS at sites in this area would likely be the result of human-assisted transmission and not bat-to-bat contact.

Representatives from federal and state agencies, together with several expert advisors, used the SDM process to develop the best possible guidance – the recommended management alternative. SDM is a carefully organized and transparent process for making optimal decisions based on the best available scientific information. We will adapt this guidance as more information becomes available and as conditions change.

**2. Who will use the guidance in the report?**

The guidance in the report is intended for natural resource agencies, who will work in cooperation with landowners, land managers and interest groups like caving organizations to implement the recommended management alternative presented in the report.

Because management objectives vary with geography and/or exposure to WNS, we have identified three distinct geographic areas based on the density of affected hibernacula and known WNS spread dynamics (see Figure 1 of the report). Area 1 is nearest the epicenter and is considered to be saturated with affected hibernacula; Area 2 is defined by a mosaic of affected and potentially unaffected hibernacula; and Area 3 is defined as the region more than 250 miles from the nearest known WNS-affected hibernaculum, where it is less likely for WNS to spread this year through bat-to-bat transmission.

While the boundary of Area 3 may shift as WNS spreads, for the current hibernation season Area 3 includes all or parts of: Ohio, Kentucky, Indiana, Michigan, Illinois, Iowa, Wisconsin, Minnesota, Missouri, Tennessee, Arkansas, Georgia and Alabama. Although the SDM process specifically addresses management alternatives within Area 3, the process, assessment of alternatives, and recommendations may have relevance in other areas as well.

**3. What is the time-relevancy of the report?**

The SDM process specifically assesses management conditions given the information available during the summer of 2009, and is intended only to be applied for the 2009/2010 hibernation season. Any decisions to manage hibernacula after this season should incorporate the most current information and/or changing conditions.

**4. What is the recommended management alternative?**

The recommended management alternative for reducing the spread of WNS into the geographic area susceptible to, but not yet affected by, WNS (Area 3) is to continue recommending that cave access be allowed for approved research and commercial uses as long as the immediate area remains free of WNS.

- If WNS is detected, affected sites should be closed to all human access.
- Sites within 75 miles of affected hibernacula should be closed to all access except approved research.
- Sites beyond a 75-mile radius of the affected site should continue allowing access for approved research and commercial uses only.

This approach assumes continued adherence to the existing cave advisory and other protective measures (e.g., decontamination) in areas with confirmed WNS (areas 1 and 2).

Because of the virulence of WNS, the analyses conducted for the SDM initiative suggest there is a high probability that WNS will be transmitted to Area 3 even with protective management in areas 1 and 2. By implementing the recommended strategies, however, we hope to slow the spread and reduce the risk of a major jump into Area 3.

If or when WNS spreads to Area 3 during the current hibernation season, state and federal biologists should continue to monitor the spread of WNS and evaluate the effectiveness of the recommended management alternative in slowing WNS.

**5. How will natural resource agency managers use the guidance in this report?**

The report will assist managers in developing and implementing WNS response plans, including taking steps to prevent the spread of WNS to new sites through human-assisted transmission, as well as taking actions when WNS is detected.

When WNS is confirmed at a new site, a user guide, “White-Nose Syndrome Management: Area 3 Implementation Guide,” will assist natural resource agencies as they communicate with landowners and land managers so they can take precautionary actions. State wildlife biologists will be points of contact for further information.

Managing the WNS response requires the participation of many individuals and organizations because bat hibernacula are on land managed by federal, state and other public agencies; land owned by conservation and other organizations; and privately held land.

**6. Are states required to use the recommended alternative?**

The U.S. Fish and Wildlife Service believes the report presents the most reasonable approach to managing risk given the best available scientific information and significant uncertainty. The report and associated analysis is meant to aid the decision makers in understanding the current state of knowledge and the tradeoffs inherent in addressing WNS concerns. It is not meant to limit the discretion of the decision-makers in exercising their responsibilities but will be considered in reaching management decisions.

**7. Who developed the recommendations in the report?**

Scientists from federal agencies including U.S. Fish and Wildlife Service, U.S. Geological Survey and National Park Service; as well as scientists from state wildlife agencies in Indiana, Kentucky, New York, Pennsylvania, Vermont, Virginia, West Virginia and Wisconsin participated. This team was aided by several experts in predicting consequences of various alternatives. The team also communicated with other state natural resource agencies within the geographic range of WNS.

**8. What strategies were considered during the process of developing the recommended alternative?**

The team compiled a comprehensive list of potential management strategies. It narrowed that list down to 11 strategies that included taking no action, allowing research and recreational access with decontamination, treating caves with fungicide, removing bats from hibernacula for treatment, and eradicating WNS-affected bats. Alternatives that include strategies to treat or eradicate bats were not supported by the analysis because no such strategy is currently known to be effective and the risks of implementing these actions may outweigh any potential benefits.

For this report, the team focused on the geographic area susceptible to WNS (Area 3), not on those areas already affected (areas 1 and 2). It considered 23 alternatives based on proximity to newly discovered WNS sites.

**9. Who wrote the report?**

The U.S. Fish and Wildlife Service's Northeast Region issued the report in conjunction with the Southeast and Midwest regions. It is based on input from representatives from federal and state agencies and nongovernment advisors who participated in the process. The document itself was prepared by Jennifer A. Szymanski (USFWS, Midwest Region), Michael C. Runge (USGS, Patuxent Wildlife Research Center), Mary J. Parkin (USFWS, Northeast Region), and Mike Armstrong (USFWS, Southeast Region).

**10. What are the next steps?**

- The U.S. Fish and Wildlife Service together with state and federal partners will continue to research effective control measures and closely monitor bats and their hibernacula for signs of WNS.
- The Service will assess the need to revise the management strategy for Area 3 over time in response to emerging information and changing circumstances.
- The Service will work with the states to determine whether a similar process should be used to develop strategic management approaches for areas 1 and 2.
- The Service will revise the [cave advisory](#) (published March 2009) to reflect the guidance in the report.

**11. Why did you approach the issue of managing for WNS using SDM?**

Recognizing the complexities surrounding potential management strategies for WNS, the U.S. Fish and Wildlife Service identified the need for a strategic approach to identify the best alternative for managing the disease across its geographic range. Towards this end, the Service initiated a formal SDM process to facilitate development of consistent, science-based management recommendations. The central purpose of SDM is to foster rational and transparent management decisions in the face of uncertainty.

**12. How long did you work on the SDM process for WNS management?**

The team started working on this process in March 2009 with the goal of making it available by mid- to late winter when the symptoms of WNS usually become evident.

The time spent on an SDM process depends upon the complexity of the problem, so using the process can take anywhere from one hour to several years to complete. Considering the complexity of the WNS problem, we completed the process in an extremely accelerated timeframe.

**13. What part does the SDM report play in developing the national WNS plan?**

The SDM report will be incorporated into the disease management section of the national WNS plan. As the situation changes and new information emerges, the recommended alternative will be revisited and adapted as necessary.

The national plan will be broad in scope and will guide our overall WNS response. The plan addresses several different elements of our response to WNS, including population monitoring, communications, research guidance, captive propagation and rehabilitation, bat genetics, data management, and disease surveillance.

**14. Will the SDM report guide spending of the \$1.9 million Congress recently appropriated for WNS work?**

The report identifies some management needs (e.g., signage and monitoring) to support the recommended alternative. While the Service may provide funding support for some of these activities, we plan to use the bulk of the \$1.9 million to fund targeted research.

###