

PROJECT SUMMARY

Proposed Development of the New National Wildlife Health Center - Madison, Wisconsin





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The United States Geological Survey (USGS) is proposing to develop a new National Wildlife Health Center (NWHC) in Madison, Wisconsin. In the months ahead, USGS will be undertaking preparation of an Environmental Impact Statement (EIS) to ensure compliance with the National

Environmental Policy Act (NEPA) of 1969, among other federal regulations. During this time, USGS will also be engaging federal, state, Tribal, and local officials, regulatory agencies, stakeholders, and the public to assist in determining the scope of issues to be addressed in planning for a new NWHC.



National Wildlife Health Center, Madison, Wisconsin

Background

The National Wildlife Health Center (NWHC) was established in 1975 in Madison as the first biomedical laboratory dedicated to assessing the impact of disease on wildlife and identifying the role of various pathogens in contributing to wildlife losses. It remains today as the only national center devoted to wildlife disease detection, control, and prevention in the United States.

The emergence of wildlife diseases has become a high-priority concern in the United States and the world. In addition to their harmful effects on natural wildlife populations and ecosystems, there is the potential for the spread of zoonotic diseases to humans, and for causing economic losses associated with livestock morbidity and mortality. The NWHC is responsible for providing research and for investigating and responding to known and

emerging wildlife diseases and wildlife mortality outbreaks throughout the United States.

The NWHC is located on a 24-acre tract of federal property which, along with a vacant building, were acquired from the U.S. Fish and Wildlife Service (USFWS) in 1978 to consolidate USFWS expertise into a single program and provide a permanent facility for the NWHC. The Main Building was constructed in the 1960's and underwent an extensive renovation in 1982 with a second building, the Tight Isolation Building (TIB), constructed in 1985 and modified in 1989. Portions of the property not occupied by buildings, access and service driveways, and parking areas were restored to native prairie in 1988. An interpretive nature trail has also been developed through the prairie and adjacent wooded area and is actively visited by the public.



NWHC, circa 1988



NWHC scientists at work

In 1996, the NWHC, along with other U.S. Department of the Interior research functions, was transferred to the U.S. Geological Survey (USGS) where it is one of many entities that provides the independent science that forms the basis of sound management of the nation's natural resources. Created by Congress in 1879, USGS is an agency of the federal government where scientists study the nation's landscape, its natural resources, and the natural hazards that threaten it. USGS is also a research organization whose work spans biology, geography, geology, and hydrology.

The NWHC provides information, technical assistance, and research on national and international wildlife health issues. It also monitors and assesses the impact of disease on wildlife populations; defines ecological relationships leading to the occurrence of disease; transfers technology for disease prevention and control; and provides guidance, training, and assistance for reducing wildlife losses. As a Level 2 Security Facility under the U.S. Department of Justice Standards for Federal Facilities, the NWHC is required to operate under criteria established by the National Institutes of Health and the Centers for Disease Control and Prevention for Biological Safety Level 3 (BSL-3) containment.

The NWHC functions as an integrated program involving disease diagnosis, field response to disease outbreaks, research, animal welfare, and training of others in disease identification and control. Collaboration with and technical assistance is also provided to a wide variety of agencies and organizations within the federal, state, and private sectors. This has resulted in an extensive network of interaction and today the NWHC is the focal point for information, technical assistance, and research on wildlife health issues.

Designated as a "mission essential" facility, NWHC functions to advance wildlife health science for the benefit of animals, humans, and the environment. However, a growing challenge to performing its mission is the age and space limitations associated with the present NWHC. Therefore, starting in 2008, USGS began conducting studies of the NWHC from which conditions hampering efficient operations were identified. Among the findings were crowded laboratories and administrative areas, deteriorating casework, cracking walls, doors, window seals and window frames requiring frequent maintenance, lack of consolidated freezer space, and use of animal housing rooms for general storage, among many others.

In follow-on studies conducted in 2011 and 2016, many of the same conditions remained. The condition of key systems, infrastructure, and equipment continued aging with numerous items requiring repair or replacement. Even with proactive efforts to repair systems and facilities, the efforts and expenditures have provided only short-term relief, focused only on those necessary to its operation. Repairs have proven costly while resulting in only modest and short-term improvements to the buildings, systems, and infrastructure which support NWHC operation. The extensive renovations needed for NWHC to meet the requirements of its mission has resulted in a cost prohibitive situation.

Overall, the NWHC is outdated, inefficient, and in need of significant renovations, replacements and repairs. It has been the findings of the various studies that the mission and function of the facility, along with the interests of the USGS, which oversees the NWHC, would be best served by replacing the NWHC with a new facility. The consequence is the need to design and construct a modern new facility to:

- > Meet USGS and NWHC's administrative, operational, health, and safety standards and requirements.
- > Provide the spaces needed to conduct research into wildlife disease detection, control, and prevention and other programs that support the mission of the NWHC.
- > Incorporate the latest technologies and best practices to ensure the health, safety, and well-being of staff, visitors, and the public.
- > Further reduce risk for exposure to pathogens and the risks faced by staff by utilizing more modern laboratory equipment, mechanical systems and operating and management approaches.
- > Make effective use of operating staff with a design that minimizes internal movements.
- > Elevate the quality of the work environment for staff and visitors.
- Apply advanced building design approaches and construction materials that are sustainable and resilient against the hazards associated with climate change and other outside forces while reducing energy consumption and the facility's carbon footprint.
- Optimize the cost of operation by applying innovative design, quality construction, highly efficient air handling, mechanical, electrical, and plumbing systems, and facility maintenance programs to achieve and maintain peak performance standards.

Developing a new NWHC will also demonstrate that the combination of a modern facility and contemporary best management practices can deliver better results, improve worker and public safety, and control operating costs.

National Wildlife Health Center

Since its establishment, the NWHC has been located at 6006 Schroeder Road, approximately five miles southwest of downtown Madison. The Main Building, comprising approximately 33,000 square feet of floor space, contains necropsy and associated disease diagnostic laboratories; general support laboratories for biological media and reagent preparation, glassware preparation and other special use areas; and administrative support areas with a conference room, staff offices, data processing and records areas. Solar voltaic panels to generate electricity, along with other conservation measures, are employed to reduce energy consumption and control operational costs.

The TIB is located approximately 150 feet northeast of the Main Building and while the buildings are physically separated, there is not a complete separation of functions, with some researchers working in both buildings. The TIB contains specialized research laboratories and support areas, staff offices for investigators and BSL-3 bio- containment animal research areas. The animal isolation wing is self-contained with cage and glassware cleaning, necropsy, and incineration facilities. Entry into the area requires use of specialized clothing and footwear, changes of clothing and footwear for each room entered, and a mandatory shower which is activated upon entering the exit chamber from the animal area

Other small structures are also on the property including a maintenance garage, an array of solar voltaic panels located behind the parking area, and a modular trailer added in the 2000's and used as employee offices.



NWHC location, 6006 Schroeder Rd

Proposed National Wildlife Health Center

The proposed NWHC is envisioned as a low-rise structure consisting of three stories and a basement containing administrative offices; BSL2 and BSL3 laboratories; vivarium ABSL-2, ABSL-3 and BSL3-AG; and support spaces. The new NWHC is intended to present a visually unified physical structure that is compatible with its surroundings. The structure would be fire-resistant and meet applicable building code requirements. In addition to the new facility itself, the proposal includes the following:

- New internal service driveways and parking to accommodate visitors, students, government vehicles, and staff.
- All utilities would remain functional to serve the current facility until completion of the new NWHC.
- Containment within NWHC laboratories to prevent staff exposure to biological and chemical agents, the escape of harmful pathogens, contamination of assay systems, reagents, and other materials, and crosscontamination between investigations.
- > Incinerators may be replaced with more energy efficient systems for biological waste disposal.
- Expanding use of photovoltaic systems to provide for a portion of the energy needed to operate the proposed NWHC.
- Installation of a geothermal field to supplement the mechanical and PV systems in meeting a portion of the new facility's energy requirements.
- A utility yard where emergency generators, for redundancy and to maintain the chillers, would be placed.
- > Continued use of the maintenance garage.
- Maintaining/restoring the prairie area and keeping it available for public access and use.
- New energy-efficient lighting along internal walkways and parking areas along with new directional and other signage.

A range of alternatives for developing a new NWHC, including the No Action alternative (i.e., maintaining the status quo) and developing a new NWHC at its current location, will be described and analyzed within the EIS.









Conceptual Renderings of Proposed NWHC

A Culture of Safety

The NWHC has a strong safety culture with biosafety and biosecurity achieved through engineering controls, administrative controls, and personal protective equipment. Adherence to these controls is evaluated and maintained through both internal and external inspection with the culture that emphasizes safety evidence of the success of the program.

Engineering controls prevent the release of contaminants into the workplace and the environment. Among the engineering controls at the NWHC are maintaining all BSL3 and ABSL3 spaces under negative air pressure, with unidirectional airflow, and approximately 12 air changes per hour; entrances to laboratories through two self-closing and interlocked doors; performing all work involving infectious agents or toxins within an appropriate, annually certified biosafety cabinet; decontaminating all laboratory wastes via incinerators and autoclaves; having all BSL3 and ABSL3 exhaust air HEPA-filtered before discharge, and heat treating and pasteurizing wastewater in decontamination systems prior to discharge.

Administrative controls are safety policies, rules, supervision, schedules, and training with the goal of reducing the risk, duration, frequency, and severity of exposure to biological hazards. NWHC's primary administrative control involves having all research with biological agents and toxins reviewed and approved by the Institutional Biosafety Committee. Researchers submit a biosafety protocol to the Committee with information about the personnel involved and their level of training and experience, the research space(s), and potential hazards associated with the work, and planned risk mitigation measures. In addition, the NWHC has an



NWHC Laboratory (typical)

Institutional Animal Care and Use Committee that reviews and approves all studies involving the use of live animals. Administrative controls also include medical surveillance of laboratory workers, up-to-date Safety Manual, annual staff biosafety and biosecurity training, and a building security plan.

Proper personal protective equipment (PPE) is the final layer of control with staff using PPE for laboratory and animal work as proscribed under biosafety protocols. Personnel also attend the respiratory protection program which requires annual training, annual fit test for respirators, and medical clearance.

Laboratories and animal spaces are also inspected annually to make sure that the facility is operating properly. NWHC leadership also evaluate whether the researchers are following the approved biosafety practices and procedures. In addition to formal inspections, NWHC leadership also checks periodically as part of the post approval monitoring process.

The National Environmental Policy Act

NEPA requires consideration of environmental issues in federal agency planning and decision-making. It does so by having federal agencies such as USGS prepare an environmental assessment (EA) or EIS for any federal action, except those that are determined to be "categorically excluded" from further analysis. An EIS is prepared for those federal actions that may significantly affect the quality of the human and natural environments, such as development of a new NWHC, or where the

impacts are unknown or controversial. The EIS is also intended to disclose significant environmental impacts and inform decision makers, stakeholders, and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment.

USGS will soon begin preparation of a Draft EIS (DEIS) to ensure that the potential environmental impacts are thoroughly documented, that the environmental consequences are adequately

taken into account, and that compliance is achieved with NEPA and other statutes including but not limited to the Clean Air Act of 1974 and amendments; the Clean Water Act and Amendments, the Endangered Species Act of 1973; the National Historic Preservation Act of 1966; and the Farmland Protection Policy Act, among other laws, regulations and Executive Orders. Preparation

of NEPA documentation, and its consideration by federal, state, and local officials, regulatory agencies, stakeholders, and the public, will be conducted to demonstrate that USGS understands and has fully considered the potential environmental impacts associated with new NWHC development during the decision-making process.

Public Outreach and Engagement

Public outreach and engagement is a key component of the environmental planning and review process, ensuring that public concerns and issues are identified and addressed in the DEIS. The process includes undertaking scoping, including holding public scoping meetings, as one of the first steps in developing the DEIS. Undertaking scoping early in the process provides all interested individuals and entities with an opportunity to understand the proposed NWHC project in light of its possible environmental consequences and to provide comments and express their views on the scope and significant issues to be addressed in the DEIS.

To aid in the process, USGS has established a NWHC EIS website to host communications, public announcements, and other relevant information and to facilitate public access to project-related information (*https://nwhceis.com/*). In addition, USGS recently published a Notice of Intent (NOI) to prepare an EIS for the development of a new NWHC in the Federal Register thereby initiating a scoping period. Coinciding with publication of the NOI, USGS also published a similar notice in

local newspapers inviting government agencies, officials, organizations, and the public to participate in the public scoping and DEIS process. During the scoping process, federal, state, Tribal, and local governments, and the public have an opportunity to help USGS identify significant resources and issues, impact-producing factors, reasonable alternatives, and potential mitigation measures to be analyzed in the DEIS, as well as to provide additional information.

Once completed, USGS will issue the DEIS for a public comment period lasting no less than 45-days, at which time parties with an interest in the project will have an opportunity to review the evaluations, inquire about any areas of concern, and offer additional information that should be considered by USGS during the decision-making process. A Notice of Availability of the DEIS will be published in the Federal Register and in local newspapers at the time of its release and providing information about the means to examine the document and provide comments on the proposed action and DEIS. During the public comment period USGS will host additional public meetings.



Overview of NEPA Process

Following the end of the DEIS public comment period, USGS will prepare and publish a Final EIS (FEIS) which will incorporate additional data which may become known and respond to comments received on the DEIS. The FEIS will be subject to an additional public review period lasting no less than 30 days. No action will be taken to implement any of the proposed alternatives until completion of the FEIS review period and issuance of a Record of Decision by USGS.



We want to hear from you



Questions or comments concerning the proposed action can be submitted in any of the following ways:

By using the Comment Form

available on the NWHC EIS website at https://nwhceis.com/

By email

Jordan D. Sizemore, REM NEPA Project Manager, United States Geological Survey jsizemore@usgs.gov

By mail or delivery service

enclosed in an envelope labeled

"NATIONAL WILDLIFE HEALTH CENTER EIS"
Jordan D. Sizemore, REM
NEPA Project Manager Environmental Management Branch
United States Geological Survey
NWHC 6006 Schroeder Rd
Madison, WI 53711

Throughout the planning process, interested parties can request to be added to the contacts database to directly receive via email future announcements and notifications, including upcoming public meetings and the availability of the DEIS and FEIS documents, by submitting your contact information (name, affiliation if any, and email address) through the website or to Jordan D. Sizemore at USGS (jsizemore@usgs.gov).

Thank you for your interest and participation.





