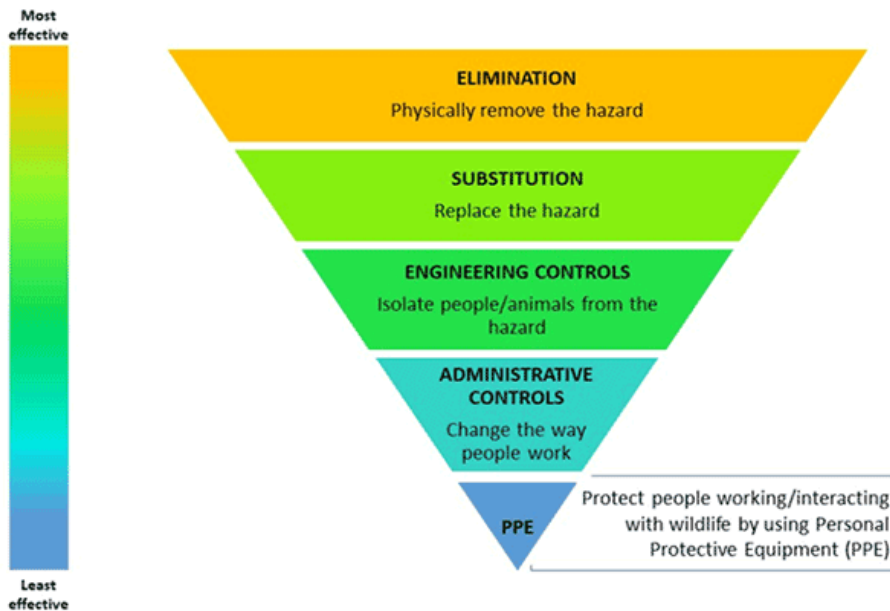


SARS-CoV-2 Wildlife Rehabilitation Biosecurity Requirements

Introduction

To assist in reducing the risk of transmission of the SARS-CoV-2 virus the CDC One Health Partnership, a joint effort involving human, domestic, and wildlife health federal and professionals working together, published guidance for considerations for wildlife rehabilitation. Using the hierarchy of controls method, they have identified critical components of the rehabilitation process that may have risk mitigation measures incorporated. While the only way to eliminate risk in a wildlife rehabilitation setting is to temporarily suspend rehabilitation of known or suspected to be susceptible species (at this time), this guidance is being implemented to allow for rehabilitation for species whose susceptibility has been illustrated in a laboratory setting (white-tailed deer) or for which a laboratory study has indicated likely reduced susceptibility under certain conditions (big brown bats).



Hierarchy of Controls Model provided by CDC: [Reducing the Risk of SARS-CoV-2 Spreading between People and Wildlife](#)

Instructions

This document provides more detailed guidance on risk mitigation measures that all must be incorporated into wildlife rehabilitation activities for White-tailed Deer and Big Brown Bats. Licensees interested in rehabilitating these species will submit detailed descriptions and/or supporting documents to explain their corresponding risk mitigation plans. If a licensee has rehabilitated both big brown bats and white-tailed deer previously, and wants to continue to rehabilitate these species, a separate plan must be submitted for each species. The department will review the plans for completeness. Approval for the rehabilitation of the species requested may be given if all of the controls are shown to be met. Should a rehabilitator receive authorization for the rehabilitation of white-tailed deer and/or big brown bats this spring, the department must be contacted pre-release to determine if any additional precautions are necessary prior to release. The release of individual big brown bats and white-tailed deer will happen as soon as possible when the animal is capable of surviving on its own. At this time, over-wintering of big brown bats is prohibited. No big brown bats or white-tailed deer will be held beyond 180 days (NR 19.78(7)), and all animals will be released as soon as possible when they are capable of surviving on their own.

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It is important to remember that there is still a great deal of unknown information regarding the susceptibility and transmissibility of this virus as well as its ability to mutate. The Department will remain abreast of any additional findings and relay any necessary additional updates of mitigation efforts to the rehabilitators approved for big brown bats and white-tailed deer.

Read through all of the information on pages 1-7. Utilize the links when provided to access approved options for things such as PPE, disinfectants, cleaning/disinfecting schedules, etc. Complete the application on pages 8-9 and provide that and all accompanying information to Amanda Kamps for Department review.

Personal Protective Equipment (PPE)

PPE is the most basic of the requirements and also the most prone to be compromised through unintentional human error and malfunction. Therefore, additional Engineering and Administrative Controls (listed below) must also be incorporated in addition to PPE. Many of the following requirements should already be incorporated into rehabilitation settings when working with any species, however, there are additional requirements that should be incorporated with white-tailed deer and/or big brown bats.

Each facility must follow the minimum requirements on the use of PPE when handling or working with white-tailed deer and/or big brown bats.

1. **Face masks/respirators:**
 - a. Respirator use should occur in the context of a complete respiratory protection program in accordance with [OSHA Respiratory Protection standard \(29 CFR 1910.134\)](#), which includes medical evaluations, training, and fit testing.
 - b. N95 respirators with an exhalation valve and masks with vents should not be used when working with wildlife because they do not prevent the wearer's droplets from being released into the immediate environment and may, therefore, expose animals being handled. It is required to don a surgical mask overtop of a N95/mask with a valve/vent or use is prohibited.
2. **Eyewear:** Staff and volunteers must wear protective eyewear, such as face shields or goggles because splashes or sprays could occur.
3. **Gloves:** Staff and volunteers must wear disposable exam gloves or other reusable gloves (e.g., rubber dish-washing gloves) that can be decontaminated and/or changed between individual animals.
4. **Clothing:** Staff and volunteers should wear dedicated clothing and footwear that can be laundered separately after shifts or can be bagged and thrown away immediately after completing the shift. Disposable protective outerwear such as gowns, suits, and boot covers may be appropriate depending on the activity. Dedicated outerwear that can be changed between patients may be appropriate when working with white-tailed deer and/or big brown bats. Dedicated outerwear is not considered PPE and must be used in tandem with the PPE listed above (e.g., disposable gloves, eye protection, nose/mouth covering, etc.). Protective outerwear alone is not sufficient to meet the PPE requirements.
 - a. While [PPE](#) is most often used to protect the wearer, additional requirements are being added to protect wildlife from being exposed to individuals that may be able

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to transmit the virus. Provide documentation of this practice and include in protocols.

- i. If the animal being handled is suspected to be positive for SARS-CoV-2, ensure contact to Department immediately:
 1. Dr. Lindsey Long, lindsey.long@wisconsin.gov
 2. Amanda Kamps, amanda.kamps@wisconsin.gov
 3. Tami Ryan, tamara.ryan@wisconsin.gov

Engineering and Administrative Controls

1. **Training** – Identify trainings that have been taken by animal care takers (who work directly with white-tailed deer and/or big brown bats) on risk mitigation measures that reduce the risk of transmission of disease between people or people and wildlife patients. If training has not occurred, describe what will be instituted prior to handling of species that are under department orders.
 - a. Provide training protocols that include a description of how staff and volunteers are being trained and who is providing the training. When outbreaks occur, and as new information develops, schedule and update trainings based on that new information.
 - b. Conduct training for staff and volunteers on basic biosecurity principles and practices. At a minimum, those working in close contact with wildlife should review the appropriate methods for [donning and doffing PPE](#) prior to working with the animals in any rehabilitation facility. Provide documentation of this training.
2. **Communications** – Develop an internal communications protocol for staff and volunteers.
 - a. Provide the facility’s sick leave policies. They should encourage sick animal care takers to stay home or explain transfer protocols if care takers on-site cannot continue to provide care.
 - b. Provide the facility’s care-taker mask and social distancing policies, and request that staff and volunteers follow DHS guidance.
 - c. Provide the facility’s self-reporting policy for staff and volunteers who need to self-quarantine. People who may have been exposed to COVID-19 or who have symptoms consistent with COVID-19 should stop contact with wildlife and follow recommendations for quarantine. Ensure policies are in place to address these situations for staff and volunteers.
3. **Staffing** – It is strongly recommended to establish dedicated teams of staff and volunteers who work together in rotating work shifts (e.g., 1 week on /1 week off) to minimize the potential spread of COVID-19 between animal care takers. Consider only using specific, minimal staff per shift for white-tailed deer and/or big brown bats. Pre-arrange backup care takers for these animals undergoing rehabilitation.
 - a. Provide staffing protocol.
4. **Wildlife care** – Describe how protocols are modified to meet biosecurity needs.

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- a. It is required to have initial quarantine protocol and procedures in place for newly admitted patients as well as strict biosecurity protocols that can help to inform release criteria development.
- b. Provide a species-specific log of personnel that have direct contact with white-tailed deer and/or big brown bats. Logs should be referenced in the risk mitigation plan. At minimum, each species log should include:
 - i. Date(s) of contact
 - ii. Personnel name
 - iii. Duration of interaction
- c. Minimize frequent human proximity to white-tailed deer and/or big brown bats. Describe your workflow including the amount and type of interaction with care takers, as well as where in the daily animal care schedule they are.
- d. Minimize proximity to other species. Describe how this is achieved in your facility.
 - i. For indoor enclosures:
 - Describe separation between white-tailed deer and/or big brown bats and other species.
 - The use of a solid barrier between enclosures (e.g., between open mesh style small cages) may also help to minimize transmission of virus through the air.
 - If entire rooms are dedicated to white-tailed deer and/or big brown bats, the door to the room must be closed at all times unless during care-taker entry or exit. If multiple rooms house white-tailed deer and/or big brown bats, only one of the room doors can be open at a time. There is no minimum foot separation between these rooms as long as all of these precautions listed in this bullet point are in place.
 - ii. For outdoor enclosures:
 - Describe separation between white-tailed deer and/or big brown bats and other species.
 - Do not allow contact between wildlife, pests, domestic animals and rehabilitation patients in outdoor cages; consider placement of a cover over cages or double fencing. Provide an explanation of how these types of contacts are being minimized.
- e. Animal care housing, handling, food, water, and medical supplies
 - i. Isolate animals with respiratory (coughing, sneezing, nasal discharge) or gastrointestinal (diarrhea, vomiting) signs. Details on isolation rooms and workflow must be provided. White-tailed deer and/or big brown bats are required to be kept isolated in properly ventilated areas. Limit care-taker contact and [use appropriate PPE](#). Contact a veterinarian to arrange care if needed.
 - ii. Avoid unnecessary handling or other contact with white-tailed deer and/or big brown bats and limit the number of care takers who handle members of these species. Provide protocols for intake and care of white-tailed deer and/or big brown bats. These protocols should include descriptions of how to provide care with minimal interaction and follow the facility workflow provided below.
 - iii. Implement a sequence for handling wildlife in rehabilitation:
 - First: Handle or treat white-tailed deer and/or big brown bats.

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- Last: Handle or treat animals that have clinical signs compatible with SARS-CoV-2 in an isolated area.
 - All other animals should be treated between these two groups, keeping in mind to handle younger animals before adult animals.
 - Ideal conditions: separate care takers would be assigned to care for each group (first, last and all other animals are considered different groups), limit the number of care takers, handle/treat in the sequence listed.
- iv. It is required to follow guidelines in the NWRA/IWRC "[Minimum Standards for Wildlife Rehabilitation, 4th edition](#)" to include daily cleaning and disinfection of the facility.
- v. It is required to follow release criteria and pre-authorization.
- At least two weeks prior to the release of white-tailed deer and/or big brown bats, licensee will contact Amanda Kamps to indicate that release is near. Licensee must verify that all biosecurity measures have been and continue to be implemented throughout entire rehabilitation time.
 - 48 hours prior to release, licensee will contact Amanda Kamps to verify all biosecurity measures again.
 - All white-tailed deer will be ear-tagged with DNR provided tags prior to release and tag numbers recorded on all reports.
 - All white-tailed deer and big brown bats will be released as soon as possible when they capable of survival on their own.
 - No white-tailed deer or big brown bats will be held in rehabilitation beyond 180 days and overwintering will not be authorized.
- vi. It is required to [wash hands](#) with soap and water or apply hand sanitizer with at least 60% alcohol before and after physical contact with patients, before putting on PPE, after taking off (doffing) PPE, after cleaning or sterilizing equipment, and after using the bathroom.
- f. Facility biosecurity – Describe how facility components meet or have been modified to meet the following requirements:
- i. [Provide CDC COVID-19 ventilation guidelines](#) to improve ventilation in the facility. Describe the improvements you have made to your facility.
 - ii. If there are people residing in the same building as the white-tailed deer and/or big brown bats being rehabilitated, or members of the public visit portions of the same building, identify how the ventilation system works in each area of the building. Describe airflow. Describe if ventilation systems are separate between animal care areas and all other portions of the building.
 - iii. Explain building power and utilities supply, and what back-up measures are in place in the event of power/utility outages.
 - iv. Utilize footbaths containing a solution of an [EPA-listed disinfectant](#) for use against SARS-CoV-2 at entry and exit points in areas housing white-tailed deer and/or big brown bats.
 - Scrub boots with a boot brush before stepping in footbaths to remove organic material.

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- Change footbath solutions at least once per day, as some disinfectants are not effective in the presence of organic matter.
- Provide documentation of foot bath stations and/or footwear changing stations, if different than the above bullet points.

Or explain procedure with disposable shoe covers.

- v. Provide a disposal protocol that includes how contact with animal feces is being minimized. Since SARS-CoV-2 may be shed in feces, ensure regular removal of feces with proper disposal based on state/local ordinances.
 - vi. Use an [EPA-listed disinfectant](#) for use against SARS-CoV-2 on all non-disposable equipment used in the capture, handling, transport, rehabilitation, and husbandry of known or suspected to be susceptible wildlife. Provide [cleaning and disinfecting protocols](#) that include strength of disinfectant, duration of soaking time, etc.
5. **Reporting** – for human and animal health concerns to authorities, including self-reporting of any SARS-CoV-2 positive animal care takers. It is required to IMMEDIATELY report to the state and/or federal wildlife agency any SARS-CoV-2 white-tailed deer and/or big brown bats with possible exposure to a person with COVID-19. Not all clinical signs consistent with SARS-CoV-2 infection in wildlife are known; therefore, all illnesses should be reported. Describe reporting protocol for both animal and human health.
- a. Clinical signs suspicious of SARS-CoV-2 in animals include: Fever, coughing, difficulty breathing or shortness of breath, lethargy, sneezing, nasal discharge, ocular discharge, vomiting, diarrhea.
 - b. Reports are made to:
 - Dr. Lindsey Long, lindsey.long@wisconsin.gov
 - Amanda Kamps, amanda.kamps@wisconsin.gov
 - Tami Ryan, tamara.ryan@wisconsin.gov

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Additional Resources

Federal Resources

- CDC: [COVID-19 and Animals](#)
- CDC: [Evaluation for SARS-CoV-2 Testing in Animals](#)
- USGS: [Field Manual of Wildlife Diseases](#)
- USGS: Assessing the Risks Posed by SARS-CoV-2 in and via North American Bats—Decision Framing and Rapid Risk Assessment

Professional Organization Resources

- American Veterinary Medical Association: [Disaster Preparedness Resources](#)
- Association of Fish and Wildlife Agencies: [COVID-19 and North American Species of Mustelidae, Felidae, and Canidae](#)
- IUCN: [Guidelines for Working with Free-Ranging Wild Mammals in the Era of the COVID-19 Pandemic](#)
- IUCN SSC Bat Specialist Group: [recommendations to reduce the risk of transmission of SARS-CoV-2 from humans to bats in bat rescue and rehabilitation centers](#)
- IUCN SSC Bat Specialist Group: [Recommended Strategy for Researchers to Reduce the Risk of Transmission of SARS-CoV-2 from Humans to Bats](#)
- The National Association of State Public Health Veterinarians: [Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel](#)
- National Wildlife Rehabilitators Association: [COVID-19](#)
- Wildlife Disease Association: [COVID-19 Information](#)
- Wildlife Health Australia: [Bat Health Focus Group](#)
- Zoo and Aquarium All Hazards Preparedness, Response, and Recovery (ZAHP) Fusion Center: [Considerations for the management of non-domestic species in human care during COVID-19](#)