



Report on Feral Pigs and Farmed Mink

As required by the State Legislature in 2023 Session Law

February 2024

Minnesota Department of Natural Resources
500 Lafayette Road
St. Paul, MN 55101

In cooperation with the Minnesota Board of Animal Health, Minnesota Department of Agriculture, and
Minnesota Department of Health

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Background

The 2023 Minnesota State Legislature issued direction to the Minnesota Department of Natural Resources (DNR) through session law as follows:

2023 Minnesota Laws Chapter 60 Art. 4

Section 100. Report on Feral Pigs and Mink

By February 15, 2024, the commissioner of natural resources, in cooperation with the Board of Animal Health and the commissioners of agriculture and health, must submit a report to the chairs and ranking minority members of the legislative committees with jurisdiction over agriculture and environment and natural resources that:

- (1) identifies the responsibilities of the Board of Animal Health and the commissioners of natural resources, health, and agriculture for managing feral pigs and mink;
- (2) identifies any need to clarify or modify responsibilities for feral pig and mink management; and
- (3) includes policy recommendations for managing feral pigs and mink to further prevent negative impacts on the environment and human health.

In support of this report, the Legislature also directed the DNR – Fish and Wildlife Division to host at least one public meeting on the topic of feral pigs and mink (Chapter 60 Article 1 Section 3). An online public meeting was held on November 14, 2023, to satisfy this requirement.

This report fulfills the requirements to the Legislature by February 15, 2024, summarizing the current status of feral pig and farmed mink management, identifying needs for programmatic change, and providing policy recommendations to further prevent negative environmental or human health risks.

Definitions

Feral Pig (*Sus scrofa*)

Feral Swine – The state of Minnesota defines “feral swine” as “a member of the genus and species *Sus scrofa* that lives in the wild” (Minnesota Statutes § [97A.56](#)). Similarly, Minnesota permanent rule ([1721.0010](#)) identifies “feral swine” as “any swine that live in the wild.” State law prohibits possession or release of feral swine, allowing swine to run at large, or the hunting or trapping of feral swine unless authorized by the DNR Commissioner for the purposes of control or eradication.

Restricted Species – Under Minnesota law, Eurasian wild pigs (boar) and wild pig hybrids (*Sus scrofa* subspecies and *Sus scrofa* hybrids, excluding *Sus scrofa domesticus*) are considered restricted species, which may not be imported, possessed, propagated, transported, or released unless permitted by the MDA Commissioner (Minnesota Statutes § [17.457](#)). As of 2023, permits are only available for the purposes of scientific, research, educational, or commercial purposes.

Prohibited Invasive Species – Minnesota law also recognizes Eurasian pigs and their hybrids as prohibited invasive species (Minnesota Statutes § [84D.05](#); Minnesota Administrative Rule [6216.0250](#)). Similar to restricted species, prohibited invasive species “may not be possessed, imported, purchased, sold, propagated, transported, or introduced” unless permitted by the state. DNR may issue a permit for “propagation, importation, purchase, or transport of a prohibited invasive species for the purposes of disposal, decontamination, control, research or education” (Minnesota Statutes § [84D.11](#)). Invasive species law also recognizes the authority of the Minnesota Department of Agriculture (MDA) to permit possession of Eurasian wild pigs and their hybrids under the restricted species statute.

Animals Running at Large – Any “species of cattle, horse, ass, mule, sheep, swine or goat” allowed to run loose on the landscape is considered “running at large” (Minnesota Statutes § [346.16](#)). Under this statute, it is illegal for persons owning or in control of domestic swine to allow the animals to run at large within the state, and a civil penalty may be imposed for damages.

Farmed American Mink (*Neovison vison*)

Domesticated American mink (*Neovison vison*) are raised in captivity as an agricultural pursuit for fur production as a recognized farm product (Minnesota Statutes § [336A.02](#)). Minnesota Statutes § [17.351](#) requires that mink raised for this purpose are at least one generation removed from the wild. Further, Minnesota Game and Fish laws prohibit the purchase or sale of mink, for breeding or propagating, that have not been “pen-bred for at least two generations” (Minnesota Statutes § [97A.105](#)).

Current Situation

In 2023 the Minnesota Legislature requested that agencies in Minnesota review current legal authorities and responsibilities, identify any need to clarify or modify responsibilities for feral pig and mink management, and develop policy recommendations to further prevent negative impacts on the environment or human health.

Feral pigs

In the United States, regulatory authority pertaining to feral pigs, also referred to as feral swine, falls primarily to the states (Moritz and Cornicelli, 2023). In Minnesota, regulations that influence management of feral and loose domestic pigs fall under various responsibilities of the Board of Animal Health (BAH), MDA, the DNR, and local law enforcement authorities. Authorities between these entities vary, largely in relation to whether the loose animals are of domestic, Eurasian, or hybrid origin.

Feral pigs or pigs living in the wild can result from intentional introductions of wild Eurasian species and their hybrids or accidental escapes of domestic animals. Regardless of the source, pigs are not native to Minnesota and are a recognized concern for natural resource managers and the agricultural community due to the substantial impacts they can have on ecosystems, native species, and agricultural crops. In fact, the Invasive Species Specialist Group of the World Conservation Union identified pigs (*Sus scrofa*) among the list of the World's 100 Most Invasive Alien Species based on their impacts on biological diversity and human activities (Lowe et al., 2000). Feral pig populations are difficult to control because pigs are very intelligent and have high reproductive rates; effective depopulation requires targeted removal of entire sounders (groups of pigs living together). Nationally, the cost of feral pig damage has been estimated to exceed \$2.5 billion annually (USDA-APHIS, 2023).

Feral pig populations outside of Minnesota have harbored and propagated several diseases of concern for both the domestic swine industry and the public health community. Feral pigs can spread pathogens to other animals and humans (sometimes referred to as zoonotic diseases) including but not limited to leptospirosis, toxoplasmosis, brucellosis, tularemia, trichinellosis, swine influenza, and salmonella. Handling and butchering feral pigs or eating undercooked meat from feral pigs are the most likely ways pathogens are transmitted to humans.

Although Minnesota does not have an established feral pig population, feral pigs have been reported in at least 35 states and populations have been expanding in recent decades. Most feral pigs occur in the southern United States (Figure 1); however, populations have been detected in Canada (primarily in the prairie provinces; see Figure 2 for adjacent provinces) and states close to Minnesota (Michigan, Missouri, North Dakota, and Wisconsin). Using public observation surveys and watershed-level genetic sampling, recent research suggests feral swine are north of Minnesota's border with Manitoba (Aschim & Brook, 2019). The United States Department of Agriculture, Animal Plant and Health Inspection Service, Wildlife Services (USDA-WS) is in the process of developing a feral swine detection plan for Montana and North Dakota, prioritizing these areas because most observations of swine in Canada are from Saskatchewan and Alberta.

In recent years, an average of 12 reports of loose domestic pigs have been routed to DNR and BAH annually. If not captured, domestic pigs can survive and reproduce on the landscape. Most often, the loose domestic pigs are coming from smaller or hobby farms with animals that escape without recapture. Pot-bellied pigs, either from farms or formerly kept as pets, are also a common type of pig reported on the loose.

Public reports of loose pigs currently follow a complex routing to various government entities (Figure 3). Ownership of loose pigs can be difficult to determine because official identification is not required for pigs unless they are being moved from their farm of origin (Minnesota Administrative Rule [1721.0200](#)). If the owner is not found and pigs are still reported on the loose, state agency staff or the complainant contacts the county sheriff.

Different entities are authorized to capture and remove pigs running loose or living on the on the landscape, and laws differ depending on whether pigs are of domestic or Eurasian origin (Figure 4). State law allows enforcement officers – typically local sheriff’s offices – to charge a landowner for allowing their domesticated pigs to run in a free state due to poor containment (Minnesota Statutes § [346.16](#)). County-level law enforcement agencies typically use local ordinances for loose livestock and rarely use the running-at-large statute. More often, counties use public nuisance law (Minnesota Statutes § [609.74](#)) rather than the running-at-large statute to cite individuals who allow domestic pigs to run loose on the landscape. Because domestic pigs are private property, local law enforcement is best positioned to address initial reports of loose domestic animals. Currently, there is no established time period that determines when a loose domestic pig is classified as feral.

Only two incidents of importation of feral pigs or escape of a restricted species are on record in Minnesota. In 2016, a report of feral pigs near Big Falls was submitted to DNR. The animals were killed and DNR, working with other law enforcement agents, submitted samples to USDA-WS for genetic testing. Results indicated the pigs were most closely related to feral pigs from the southwestern United States.

A feral pig report to DNR in 2018 resulted in DNR, MDA and BAH investigations into the origin of pigs on a farm in southwestern Minnesota. In this case, the pigs were determined to be imported illegally with an incomplete certificate of veterinary inspection. Genetic results in this case indicated that the pigs were of Eurasian origin, requiring a restricted species permit from MDA. In coordination with the MDA, the owner ultimately exported the Eurasian pigs to a fenced shooting facility out of state. As of December 2023, there are no remaining permitted farms holding these restricted species for commercial purposes, and raising these animals for agricultural production purposes is no longer allowed.

DNR has historically taken the lead on capture and removal of loose pigs deemed a threat because the agency is authorized to capture and remove nonnative or domestic animals that are either causing damage to natural resources or agricultural lands or otherwise negatively impacting wildlife or people (Minnesota Statutes § [97A.045](#)); under this statute DNR must consult with both the BAH and the MDA before removing animals. Other laws relating to removal of pigs either require a determination that the animals are feral and living in the wild (Minnesota Statutes § [97A.56](#)) or can be genetically linked to Eurasian wild pigs or their hybrids (Minnesota Statutes § [17.457](#) and § [84D.05](#); Minnesota Administrative Rule [6216.0250](#)).

Once state officials determine feral or loose pigs are not going to be retrieved by owners and must be removed from the landscape, DNR requests assistance from USDA-WS to remove pigs under their federally-funded Feral Swine Damage Management Program. Targeted capture and culling is the preferred control measure for loose pigs or feral swine because entire sounders must be removed at the same time. Pigs that are harassed or threatened by people learn to avoid those situations, will disperse across the landscape, and can become very difficult to capture or remove.

In practice, determination that loose domestic pigs will not be captured by owners can take several weeks. Federal funding for feral pig removal work has been limited and inconsistent. All pigs removed by USDA-WS are sent to the National Veterinary Services Laboratory in Ames, Iowa for disease testing; to date no pigs removed from Minnesota have tested positive for disease. DNR has been successful in prosecuting livestock owners who have allowed pigs to become feral.

Farmed Mink

Mink farms have recently garnered attention due to the animals' susceptibility to diseases that can also impact humans, such as SARS-CoV-2 and influenza viruses. Mink farming has declined over the decades in Minnesota and is currently practiced on a limited scale. This review is an opportunity to ensure the state of Minnesota has the necessary policies and structures in place to respond to any animal or public health concerns.

Mink are susceptible to and can transmit multiple reportable infectious diseases that can infect people including but not limited to SARS-CoV-2, influenza, leptospirosis, rabies, and toxoplasmosis. Research has shown that Aleutian mink disease parvovirus has been transmitted from farmed mink to wild mink populations in the United States; this disease is one of the major infectious diseases impacting farmed mink. Bidirectional transmission of SARS-CoV-2 between mink and humans was documented at multiple farmed mink operations during the COVID-19 pandemic. According to the Centers for Disease Control and Prevention, most cases of SARS-CoV-2 in captive and wild animals are believed to have resulted from a human infection that was transferred to mammals. Although there is no evidence that mink are playing a significant role in the spread of SARS-CoV-2 to people, mink-to-human spread of SARS-CoV-2 has been reported in the Netherlands, Denmark, and Poland, and data suggest it might have occurred in the United States (CDC 2023).

Farmed mink are pen-raised animals of various coat colors. Due to domestic breeding and husbandry over multiple generations, farmed mink tend to be larger than wild-born mink; their dependence on humans substantially limits survival in the wild if released.

As of 2023, there are six commercial game farm license holders who have indicated they possess mink (as documented in the DNR game farm activity report). Current records indicate there are fewer than 225 mink on those licensed farms. DNR enforcement staff inspect farms prior to approving a license application. Licensed farms must submit annual activity reports, including numbers of animals possessed, purchased, born and sold as well as the number of deaths or number of accidental releases. Any cases of infectious diseases that are of public health significance must be reported immediately to the Minnesota Department of Health (MDH); reported disease results are shared with relevant staff at BAH, MDA, and DNR as well.

The MDA offers a voluntary registration program for fur farms. This program is not well-used and was likely of greater value to farmers historically when the state was home to many more fur farms. The MDA program provides registered farms with documentation tags, upon request, that can be used for transport and sale. Registered farms are required to report on annual pelt sales. Currently, only one farm is registered in the MDA program and no farms have requested tags in many years.

Roles and Responsibilities

State Authority, Responsibility, and Roles

Minnesota Board of Animal Health

Responsibility: Protect the health of domestic animals

Role: Regulate importation of domestic animals; review and approve certificates of veterinary inspection for all birds and mammals imported into the state; monitor and test for diseases of concern.

BAH has the duty to protect the health of Minnesota domestic animals (Minnesota Statutes § [35.03](#)). With respect to pigs, the Board's vested interest lies in protecting domestic pigs from disease exposure. Notably, Minnesota is second in the nation for pork production. BAH focuses on eliminating risk of any diseases of concern in domestic swine populations; feral pigs present the risk of spreading disease or serving as an infectious disease reservoir. To minimize this risk, BAH rule (Minnesota Administrative Rule [1721.0190](#)) prohibits the importation of feral pigs and requires that any pigs imported into the state have official identification and a certificate of veterinary inspection. Exceptions to this rule include pigs moved under an approved swine production system plan, pigs moved directly from a farm to a state-federal approved livestock market, and those moved directly to a federally inspected slaughter establishment.

In the event that feral pigs are detected in Minnesota, BAH has a role to perform testing to determine if these animals are indeed carrying diseases of concern. While BAH has vested interest, the board's only authority related to feral swine is the prohibition of importation into the state. BAH has no jurisdiction over feral swine or loose domestic swine.

Although BAH has no specific authority pertaining to farmed mink, the Board would play a lead role in coordination with DNR on fur farm management actions if a disease of consequence for domestic animals was identified on a farm.

Minnesota Department of Agriculture

Responsibility: Ensure the integrity of Minnesota's food supply, the health of Minnesota's environment, and the strength of Minnesota's agricultural economy

Role: MDA is granted authorities related to encouraging and promoting agricultural industries, ensuring fair markets exist for agricultural products and promoting these products, including assisting in the establishment of new and nontraditional agricultural markets (Minnesota Statutes § [17.03](#)).

MDA has the authority to issue permits for the importation, propagation, transport, and possession of restricted species, specifically Eurasian wild pigs and their subspecies or hybrids through Minnesota Statutes § [17.457](#) (Restricted Species). According to this statute, the MDA “commissioner, in consultation with the commissioner of natural resources, shall develop criteria for approved containment measures for restricted species.” This authority was established in the early 1990s and contains provisions that ban the possession of these animals for commercial purposes, excepting for farms that already possessed them as of March 1, 1993. Of note, this authority does not address domestic pig species or pig-like species that are not of the genus *Sus scrofa* (e.g., javelinas).

Issuing restricted species permits is the MDA’s only specific regulatory or promotional role with respect to wild pigs or their hybrids. Although the agency has the authority to capture or destroy released restricted species at the owner’s expense, MDA relies heavily on enforcement authorities from other agencies such as DNR. MDA does not have financial resources to administer this program and cannot maintain a robust surveillance or permitting enforcement program.

Minnesota Statutes, § [17.351-17.354](#) define fur bearing animals and establish a voluntary registration and tagging system for fur farmers. This program allows that farmers “may” register and participate. This registration is rarely used, with very few farms participating due to the voluntary nature and required (ten dollar) fee. MDA has no other role or regulatory authority related to fur or mink farms.

Minnesota Department of Health

Responsibility: Protect, maintain, and improve the health of Minnesotans

Role: Investigate pathogens and prevent illnesses; collaborate as needed to minimize the risk of disease transmission between animals and people.

Reporting human cases of infectious disease is a vital step in controlling and preventing the spread of communicable disease. Under state rule, a number of infectious diseases must be reported to MDH, including new or unexplained illnesses that may indicate a newly recognized infectious agent or outbreak (Minnesota Administrative Rule, [4605.7050](#)).

The Commissioner of MDH is responsible for protecting, maintaining, and improving the health of Minnesotans (Minnesota Statutes § [144.05](#)) through conducting studies and investigations, collecting and analyzing health data, and identifying and describing health problems. The Zoonotic Disease Unit in the Infectious Disease Epidemiology, Prevention, and Control Division works at the intersection of animal and human health to take a One Health approach to current and emerging zoonotic disease issues. MDH partners with other state agencies (DNR, MDA, and BAH), federal agencies, and animal industry partners to investigate and understand the interplay of humans and animals and how those interactions affect human health.

The MDH does not have any specific roles or responsibilities pertaining to feral pigs or farmed mink. With regard to the agency’s public health responsibilities, MDH will engage with BAH, MDA, and DNR in any investigation or incident where human health is a concern.

Minnesota Department of Natural Resources

Responsibility: Protect and conserve wild animals and natural resources; prevent, control, and manage nonnative and invasive species.

Role: Regulate possession and transportation of wild animals; authorize removal of feral swine; permit game and fur farms; classify nonnative species and invasive species; develop and implement invasive species plan.

Under game and fish laws, DNR has authorities pertaining to protection of wild animals (Minnesota Statutes § [97A.045](#)) and the possession and transportation of wild animals (Minnesota Statutes § [97A.501](#)). By law, “wild animals” are defined as “all creatures, whether dead or alive, not human, wild by nature, endowed with sensation and power of voluntary motion, and includes mammals, birds, fish, amphibians, reptiles, crustaceans, and mollusks” (Minnesota Statutes § [97A.015](#) subd. 55).

The DNR Commissioner may, in consultation with the MDA Commissioner and the BAH Executive Director, “capture or control nonnative or domestic animals that are released, have escaped, or are otherwise running at large and causing damage to natural resources or agricultural lands, or that are posing a threat to wildlife, domestic animals, or human health. The Commissioner may work with other agencies to assist in the capture or control and may authorize persons to take such animals” (Minnesota Statutes § [97A.045](#) subd. 1). Minnesota Statutes § [97A.56](#) prohibits the possession or release of feral swine (any member of the genus and species *Sus scrofa*) and enables the DNR Commissioner to authorize removal of feral swine for control or eradication.

Under Minnesota Statutes, chapter [84D](#), the DNR also has responsibilities pertaining to prevention, control, and management of nonnative and invasive species. Under Minnesota Statutes § [84D.05](#) and Minnesota Administrative Rule [6216.0250](#), only “Eurasian swine, European wild boar (*Sus scrofa scrofa*)” are classified as prohibited invasive species. Under invasive species laws, it is a misdemeanor to possess, move, introduce prohibited invasive species; the importation, purchase, sale, or propagation of a prohibited invasive species is a gross misdemeanor. Notably, domesticated pigs (*Sus scrofa domesticus*), as well as all other mammals and birds defined by statute as livestock, are exempted from invasive species statutes (§ [84D.14](#)). There are no DNR invasive species regulations related to mink as wild mink are native to Minnesota and domesticated mink, as a recognized farm product (Minnesota Statutes § [336A.02](#)), are exempted from invasive species regulations.

Within the invasive species program, the department is charged with developing a long-term invasive species management plan (Minnesota Statutes § [84D.02](#) subd. 3). The plan, titled “[A Minnesota Management Plan for Invasive Species](#)”, was developed in conjunction with partner organizations. The DNR Commissioner is directed to cooperate with other states and Canadian provinces for the purposes of control and management of invasive species and may contract for emergency invasive species prevention services (Minnesota Statutes § [84D.02](#) subd. 5 and subd. 7).

DNR does not currently receive dedicated financial resources to administer a program for monitoring the presence of escaped domestic pigs or feral pigs and cannot maintain a robust surveillance program. The DNR relies on observation reports of pigs from the public or professionals. Staff time to assist in loose domestic or feral pig response is charged to the Game and Fish Operations Account.

The DNR Commissioner permits the ownership, breeding, and propagation of fur-bearing animals for commercial purposes via a game farm license (Minnesota Statutes § [97A.105](#)). Under this authority, the Commissioner develops rules for the issuance of game farm licenses, inspection of facilities, acquisition and disposal of animals, and reporting by licensees. Requirements for mink (Minnesota Statutes § [97A.105](#) subd.6) state, “mink may not be bought or sold for breeding or propagating unless they have been pen-bred for at least two generations.” Farms are inspected by DNR enforcement staff prior to approving a license application and farms are required to submit annual activity reports, including numbers of animals by species that are possessed, purchased, born, sold as well as the number of deaths or number of accidental releases. Sales of captive-reared mink through a licensed game farm require a sales receipt. Game farm sales receipts are collected and documented by DNR Enforcement.

Partner Authority, Responsibility, and Roles

Local law enforcement has a primary role in responding to reports of loose livestock under running-at-large (Minnesota Statutes § [346.16](#)) or public nuisance (Minnesota Statutes § [609.74](#)) statutes. They may also get involved with cases involving unauthorized release of animals (Minnesota Statutes § [346.56](#)).

The USDA-WS is a critical partner with respect to their National Feral Swine Damage Program, which includes expertise in field operations (targeted removal), disease and population monitoring, coordination with state and national jurisdictions, and public outreach. Their authority falls under federal law (46 Stat. 1468-69; [7 USC §§ 8351-8352](#) and Public Law No. 100-202, § 101(k), 101 Stat. 1329-331, [7 USC § 8353](#)), which direct USDA-WS to cooperate with states, local jurisdictions, organizations, and individuals in the provision of services to address zoonotic disease or other nuisance issues involved mammal and bird species.

Key Findings from Public Input

Key findings are summarized here, additional detail is available in Appendix B. Public input was collected from November 7-28, 2023, via an online questionnaire on the DNR public engagement platform; direct mail, email; or phone calls to DNR project managers; and during the November 14 public meeting.

1. A larger proportion of the responding public considered feral pigs to be a greater concern than farmed mink.
2. Respondents were largely supportive of a proactive approach to management.
3. Perceptions about risks related to feral pigs were largely about impacts to habitat and wild animals. Additional concerns raised included agricultural concerns (crop damage, disease or physical threats to livestock, potential fence damage), the aggressive nature of pigs and human or domestic animal safety, and potential economic impacts (for pork and crop producers/consumers as well as on the deer and bird hunting economy), the difficulty and cost of managing pigs once established, the intentional release of pigs, property damage, and pig-vehicle collisions.

4. Perceptions related to farmed mink were primarily about the potential impacts on wild animals. Wildlife concerns were primarily focused on risks to native bird species and bird/nest predation. Many respondents expressed concern about the risks of disease transmission; comments were mostly focused on mink farms serving as incubators for COVID-19 and the potential for zoonotic disease mutation and new variants. Additional concerns raised included the welfare of farmed mink and desires to ban mink farming as well as concerns about the potential threat to poultry operations if farmed mink are released.
5. A large majority of the responding public indicated they would contact the DNR (78 percent regarding feral or loose pigs, 63 percent regarding mink), versus other agencies, local law enforcement, or neighbors.
6. Management recommendations regarding the State's response to feral pigs included strong support for proactive policy to keep feral pigs out of the state and state eradication methods, a desire for clear and consistent guidance on the feral pig issue, and the need to address current confusion regarding which agencies are responsible for pig removal. Roughly one third of respondents suggested liberal hunting policies, such as unprotected status or bounties for pigs, to assist with feral pig control. Other recommendations included better domestic pig containment, the development of a reporting tool, increased public education, increased funding, increased farm regulations and fines, and a reimbursement program for damages.
7. Management recommendations regarding the State's response to concerns about farmed mink were largely focused on mink farming bans or increased farm regulation, including stronger oversight, required secure fencing and infrastructure, and increased inspections. Increases in penalties for release and better control of intentional release by "activists" were also suggested.

Key Challenges

Feral pigs

1. **Lack of clarity regarding primary responding agency.** This is due to separate treatment of domestic pigs running at large (Minnesota Statutes § [346.16](#)), Eurasian pigs as restricted (Minnesota Statutes § [17.457](#)) or prohibited invasive species (Minnesota Statutes § [84D.05](#)), or feral swine (Minnesota Statutes § [97A.56](#)). This is exacerbated by the absence of a temporal criterion to determine when loose pigs should be considered feral and the inability to confirm subspecies status on live pigs that are running at large. Regardless of subspecies, pigs on the landscape pose a substantial threat to Minnesota's natural resources, agricultural community, and potentially public health. Separating response agency by domestic or Eurasian pigs is problematic as domestic pigs that have escaped can look very similar to Eurasian pigs or hybrids. Actions related to the pigs will often need to take place in the absence of genetic testing clarifying if it is an escaped domestic pig, a Eurasian pig, or a hybrid.
2. **Lack of comprehensive farm records.** The BAH maintains information on commercial and non-commercial pig movement into and out of the state but is reliant on owners to follow import, movement, and identification regulations. Without a complete database on domestic pig owners, it can be difficult to identify the source of loose pigs. This can delay agency response as local and state law enforcement work to identify ownership and work with owner to capture private property.

3. **Lack of pig confinement standards, particularly for backyard or hobbyist farms.** The majority of loose or feral pig reports stem from small-scale or hobby farm locations. Secure fencing protects farm animals, reduces the risk of disease transfer, and protects against damage to natural resources or other private properties.
4. **Lack of dedicated staff and funding to support monitoring and incident response.** State agencies currently rely on public reports of incidental pig observations as well as federal and other state agency efforts to monitor feral pig distribution and risk of establishment in Minnesota. Subsequently, an informal network of agency staff must coordinate *ad hoc* response when time allows, in the absence of dedicated funding.
5. **Enforcement options available in the various statutes may be inadequate to deter violations, do not sufficiently address repeat offenders, and do not sufficiently recoup the cost of agency response and associated damages.** Loose domestic pigs are the primary violation related to pigs living on the landscape in Minnesota. A lack of enforcement and/or requirements to modify containment measures likely contribute to the repeat violations that are encountered and the ongoing risk of pigs becoming feral in Minnesota. Additionally, existing statutes may not provide the opportunity to recoup costs of loose pig control or removal (see Figure 3).
6. **Current invasive species laws (Chapter 84D) do not adequately address and fund programs focused on reducing the risk of terrestrial invasive species.** The current invasive species statutes are primarily focused on aquatic species, infested waters, risks associated with aquatic recreation, and management activities or enforcement to minimize the risk of damage to aquatic systems. Similarly, revenues to support the invasive species account established under 84D come from surcharges on watercraft licenses, invasive species penalties that are primarily water-related, water-related service provider permit fees, a non-resident fishing license surcharge, and money deposited into the water recreation account (§ [86B.706](#)). In calendar year 2022, 4 percent of \$5,399,000 in general fund appropriations for invasive species supported the terrestrial invasive species program. Invasive species funding is currently the only state funding dedicated to programs that can address monitoring and management of loose pigs (Eurasian boar or their hybrids) on the landscape in Minnesota. Current law inadequately addresses the risk, and underfunds the management, of terrestrial invasive species.

Farmed Mink

1. **Lack of clarity regarding the intent of voluntary fur farm registration.** The fur farm registration program through the MDA is underused and not well understood. In addition, the existence of a mandatory licensing program under DNR and a partially redundant voluntary registration under MDA is confusing for producers as well as other responding agencies (e.g., MDH or BAH pertaining to acquiring contact information if there is a biosecurity or health concern).
2. **Infrequent fur farm inspections, unclear criteria for facilities/operations, and limited reporting requirements could miss critical changes in farm operations or populations.** DNR currently only inspects fur farms in response to an initial application for a fur farm license. Current law provides for the adoption of rules related to facility inspections but does not directly address secure handling and disease control.

Recommendations

Proposed clarifications or modifications regarding state responsibilities

Feral Pigs

1. **Eliminate permitting of Eurasian wild pigs or their hybrids for commercial purposes under § 17.457.** As of December 2023, there are no remaining permitted farms holding these restricted species for commercial purposes, and raising these animals for agricultural production purposes is no longer allowed. However, the commissioner of agriculture may issue permits for the transportation, possession, purchase, or importation of restricted species for scientific, research, educational, or commercial purposes.
2. **Develop criteria or a definition for the determination of when pigs running at large should be considered feral.** Current law is unclear on when domestic pigs, as private property, should be considered feral. It is also not practical to determine the genetic history of a pig in the field with 100 percent accuracy; this limits the ability of state agencies to use restricted or prohibited invasive species statutes that are focused on Eurasian pigs and their hybrids.
 - a. Statutory language should define a timeframe for when loose pigs are considered feral and removal action can be taken (e.g., 24 hours).
 - b. Given the challenges with identifying the source of escaped pigs, as well as the desire to respect private property, additional language could account for the time needed for an owner to recapture animals. For example, pig owners who notify the state that they are working to retrieve escaped pigs could retain ownership up to 72 hours following notification; unreported pigs should be considered feral.
3. **Develop state law to specifically prohibit domestic pig release and require adherence to approved containment measures, state notification of release, and owner payment for costs and damages of released pigs.** Appropriate domestic pig containment measures should be developed in partnership with entities possessing pig containment expertise. Early and proactive actions to limit pig escape are the least costly and most effective means to prevent escaped pigs from becoming feral or diverting critical funding to monitor feral pig introduction into the state. In addition to limiting the potential for escape, secure domestic pig containment will minimize the risk of domestic and wild animal interactions (e.g., potential disease transmission). MDA does issue grants that could assist with facility improvements on farms; the legislature may wish to review this program to ensure it has adequate funding for desired goals.

4. **Consider the inclusion of other wild, pig-like species in relevant statutes to provide broad consistency.** Proactive inclusion of species (Figure 5) from the family *Suidae* (pigs) or *Tayassuidae* (peccaries) will further minimize the risk of nonnative swine being introduced into the state or becoming feral. Similar action has been taken by states including Alabama (Admin Code R 220-2), Arkansas (Code 2-38-501), Colorado (2 CCR 406-O-VI-000), Connecticut (Department of Energy and Environmental Regulations 26-55-6(3)(b)), Idaho (Administrative Code 02:04:07 411 and 412), Indiana (Admin. Code 312 IAC 9-3-18.6), Montana (Admin Rules 12.6.1540), Ohio (Admin Code 901:1-11-02(W)), and Washington (Admin. Code 16-80-005).
5. **Streamline response protocols for reports of wild or domestic pigs that are deemed feral (i.e., not loose domestic pigs) and provide a funding mechanism to support monitoring, incident response (including enforcement), and reporting.** Regardless of source, any pig species on the landscape has the potential to become feral and poses both environmental and health concerns to the public. Current statute is vague regarding which agency should be responsible for removal of pigs living on the landscape, especially when considering the genetic history of a loose pig often cannot be determined prior to capture. Statutes also differ with respect to recouping the cost of enforcement or damages resulting from loose animals.
6. **Establish a series of increasing civil penalties for individuals who repeatedly permit animals to run-at-large and/or who do not attempt recapture of accidentally released animals.** Recent incidents involving loose domestic pigs highlight the limited deterrence value of the Running at Large statute (§ 346.16). For example, one county recently reported chronic reports of loose pigs from a single source despite a multi-year history of citations. State or contracted control of loose domestic pigs determined to be feral will be costly and ineffective in the absence of penalties that modify owner behavior.
 - a. Pig owners whose actions or inactions result in feral pigs should be required to register their premises, implement approved pig confinement and record-keeping practices, and be subject to annual inspection.
7. **Increase the civil penalties for intentional importation, possession, sales, release, or introduction of pigs as restricted species, prohibited invasive species, or feral swine and establish a means to recoup the cost of control as well as damage caused by any animals living on the landscape.** Current statutes are inconsistent in penalties and the ability to recoup the cost of incident response as well as damages resulting from pigs. A recent review of state-by-state regulations pertaining to the prevention of feral swine establishment (Moritz & Cornicelli 2023) includes reference to penalties ranging from \$250 to \$10,000 for each violation. Under current Minnesota Statutes, the state has the ability to recoup costs only for the recovery of loose Eurasian wild boars and their hybrids as restricted species (§ 17.457) or for capturing and controlling prohibited invasive species (§ [84D.08](#)); there are no means to recover costs or damages associated with loose domestic or feral pig incidents (see Figure 4).

8. **Consider whether current invasive species laws (Chapter 84D) adequately address and fund programs focused on reducing the risk of terrestrial invasive species.** Invasive species funding is currently the only state funding dedicated to programs that can address monitoring and management of loose pigs (Eurasian boar or their hybrids) on the landscape in Minnesota. A review of resources available for terrestrial invasive species, without coming at the expense of resources for aquatic invasive species, is recommended.

Mink

1. **Repeal Minnesota Statutes § 17.353 and eliminate the voluntary fur farmer registration program within MDA to reduce confusion and clarify oversight by DNR.** Maintain mandatory license requirements under § 97A.105 to ensure efficient and secure information sharing of mink farm contacts and location information with BAH and MDH in the case of a disease event with the potential of disease transmission between humans, mink, and other animals and mink. This will reduce confusion among fur farmers and others about licensing and registration requirements in Minnesota.
2. **Remove fur farms from § 97A.105 (Game and Fur Farms) and create a new section (e.g., 97A.106) focused on fur farms.** Fur farms are recognized as an agricultural pursuit (§ 17.352) whereas game farms are not.
 - a. New language under the fur farming statute should include fees to support more frequent inspections, enhanced record-keeping, oversight, and enforcement.
 - b. Fur farm licenses should be classified as “non-public data” (§ 13.37) to encourage farm compliance with state law and reduce the risk of intentional property damage.

Management to further prevent negative impacts

Feral pigs

1. **Identify a long-term funding source for state feral pig monitoring and incident response, and for agency or contracted removal of feral pigs.** Although USDA-WS does receive federal funding for feral swine removal, this funding is variable, uncertain, and influenced by the status of feral pigs in each state. Each USDA state director must apply and compete for limited funding. Additionally, the only state funding currently dedicated to activities such as feral pig management is the general fund appropriation for terrestrial invasive species. Effective feral pig monitoring, response, and eradication cannot be implemented without continued collaboration among local, state, and federal partners; coordination with tribal partners; and dedicated funding to support individual roles.

2. **Continue to prohibit state feral pig hunting under state game and fish laws.** Opportunities to hunt pigs can incentivize introduction into Minnesota and can stymie efficient control and removal of feral pigs. Hunting or public take of pigs should only be considered if DNR determines feral pig populations have become established to a point eradication has become impossible through targeted removal.
3. **Entities with statutory responsibilities related to pigs should develop outreach materials and update online information on state agency websites to ensure accurate and consistent information about the state's interest in domestic pig containment standards, keeping pigs from running at large, and ensuring that a population of feral pigs does not get established.** Regardless of the state agency's responsibility, interest groups and members of the public may not always choose to seek information from the most applicable agency. Providing this information through various sources ensures broader outreach.
 - a. There are national and international outreach branding programs, such as the "Squeal on Pigs" campaign through the Invasive Feral Swine Transboundary Working Group, which could be promoted and used in Minnesota.
 - b. Outreach materials can also be shared, in partnership with the University of Minnesota – Swine Extension Program and others, with other relevant organizations (e.g., the National FFA Organization and 4-H). Messaging should include information on best practices for pig containment, who to contact to report loose or feral pig observations, a summary of relevant state law (e.g., hunting is prohibited), and best practices for removing pigs from the landscape.
 - c. Based on input collected to inform this report, the limited effectiveness of pig hunting by members of the public (versus targeted culling/full sounder removal) for pig eradication is not well understood. Outreach materials should be developed to address this misunderstanding.
4. **Develop escaped pig/feral pig response protocols that document primary contacts, interagency communication, and actions necessary to resolve incidents of pigs running loose or living at large.** These protocols should be shared among state agencies and partners and can be used to inform public outreach materials.

Mink

Minnesota DNR, in consultation with BAH, MDA, and MDH, should establish containment and disposal requirements based on best available husbandry guidelines for farmed furbearers. Clear and well communicated criteria will clarify state requirements for licensees and facilitate productive annual inspections.

1. **Minnesota DNR, in consultation with BAH, MDA and MDH, should clarify disease testing needs or other reporting requirements for farms.** The state currently receives notification on detections of reportable diseases in farmed mink. Clarity on additional requirements, developed in coordination with BAH and MDH, will facilitate productive annual inspections.

Figures

Please note this section includes websites and hyperlinks to sources external to the DNR or any State of Minnesota entity. DNR took reasonable measures to verify the accuracy and safety of each site and link at the time of report publication. DNR is not responsible for broken links and/or other malfunctions that occur after publication.

Figure 1. USDA-APHIS Feral Swine Distribution Map

(source: <https://www.aphis.usda.gov/aphis/ourfocus/wildlifedamage/operational-activities/feral-swine/sa-fs-history>)

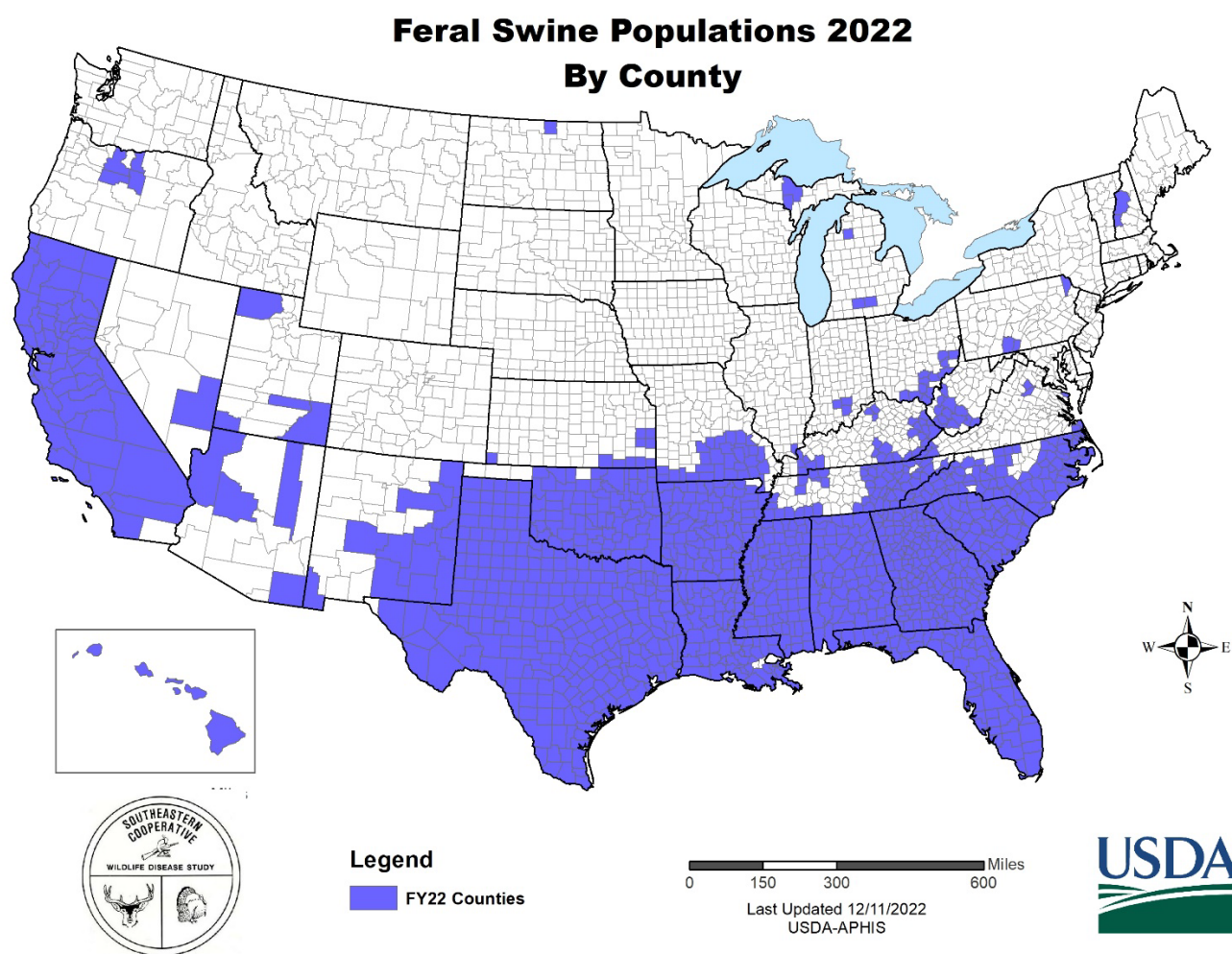
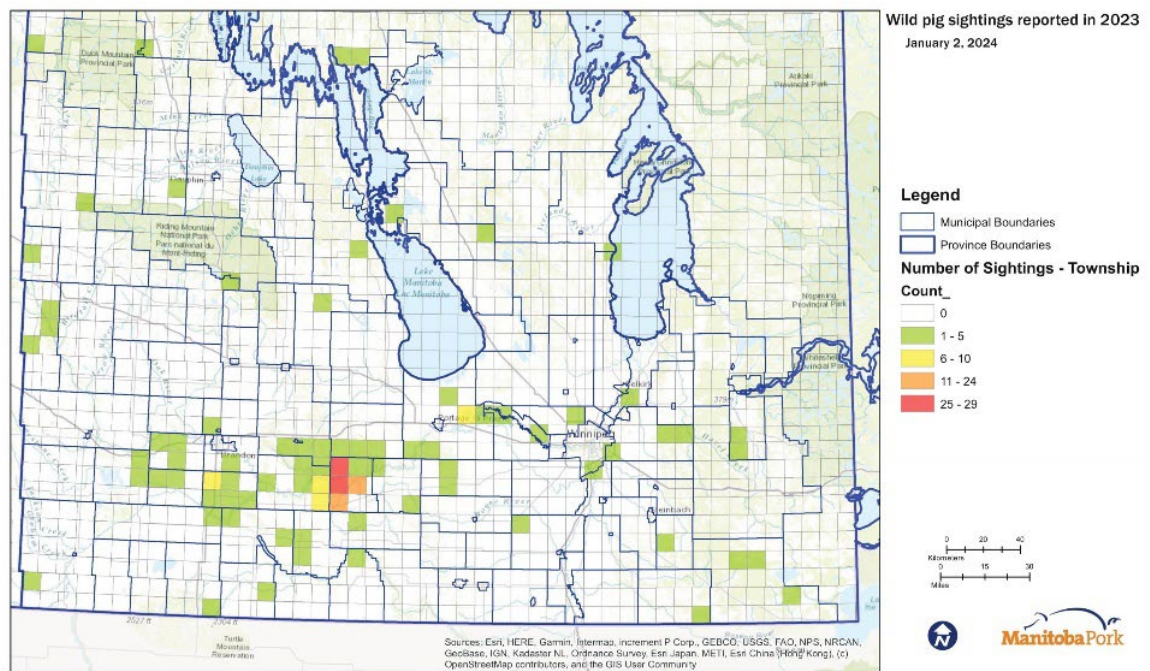


Figure 2. Reported distribution of feral pigs (including domesticated, Eurasian wild boar, and hybrids) in Canadian provinces adjacent to Minnesota. These maps may include verified and unverified or low confidence reports received from the public.

- a. Manitoba public reporting (Note: Provincial government uses the “Squeal on Pigs” campaign supported by the Manitoba Pork Council). Source: https://squealonthepigsmb.org/wp-content/uploads/2024/01/Wild-Pig-1-2-2023-Township-Colour-3-b_page-0001-scaled.jpg



- b. Ontario (sightings currently only in Eastern Ontario).

Source: <https://www.ontario.ca/files/2023-11/mnrf-annual-report-on-invasive-wild-pig-sightings-2022-2023-en-2023-11-28.pdf>



Ontario Wild Pig Sightings and Field Investigations

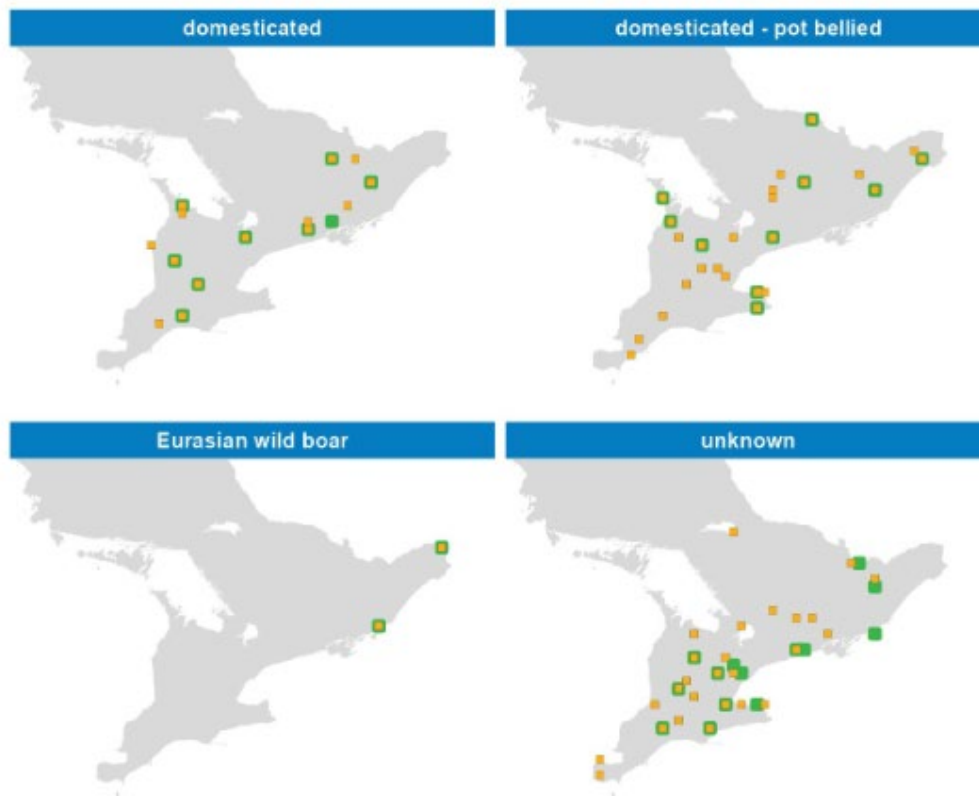


Figure 3. Current Reporting Practices for Loose or Feral Pigs

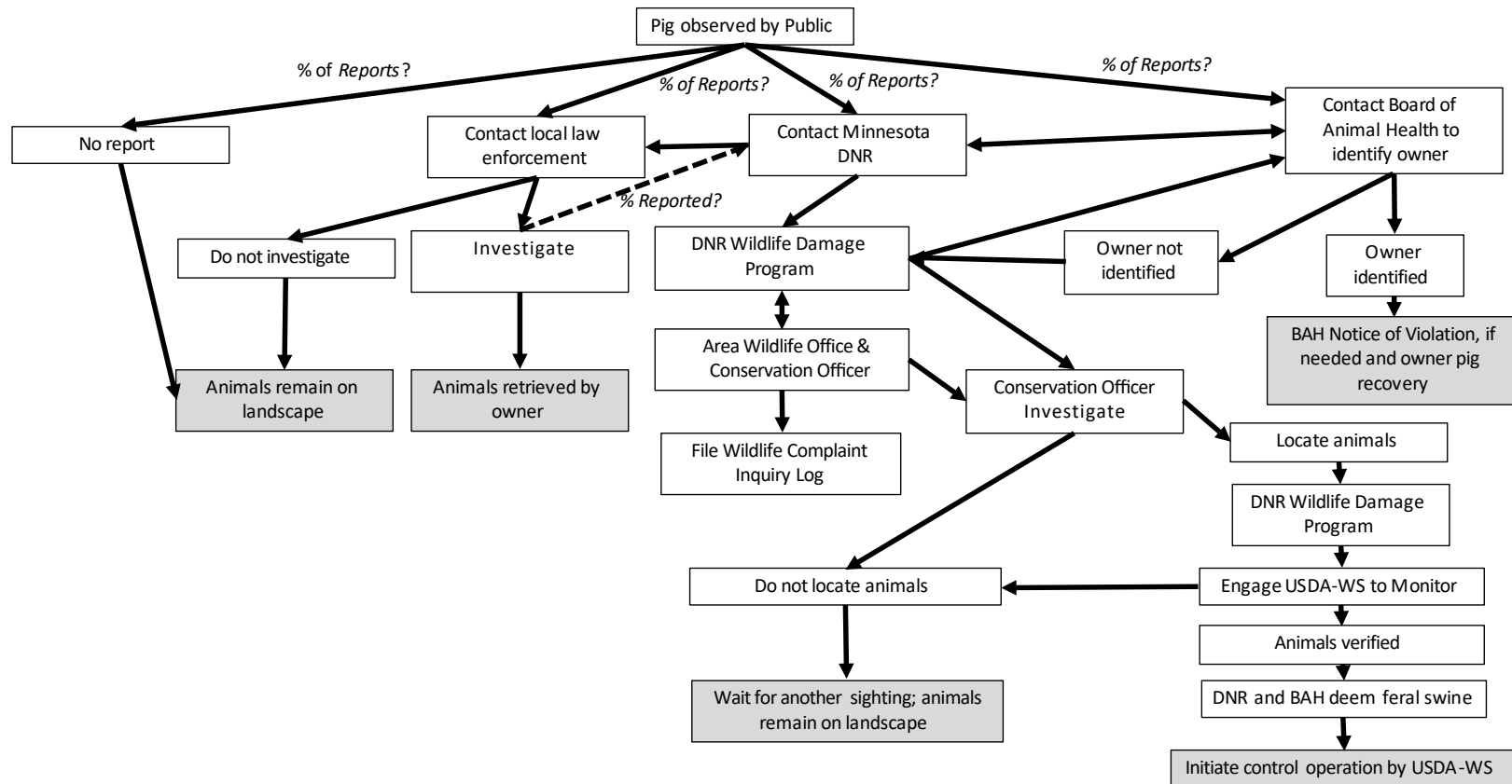


Figure 4. State authorities to capture and remove pigs from the landscape. Red font highlights gaps in statutory language that pose challenges for responding entities.

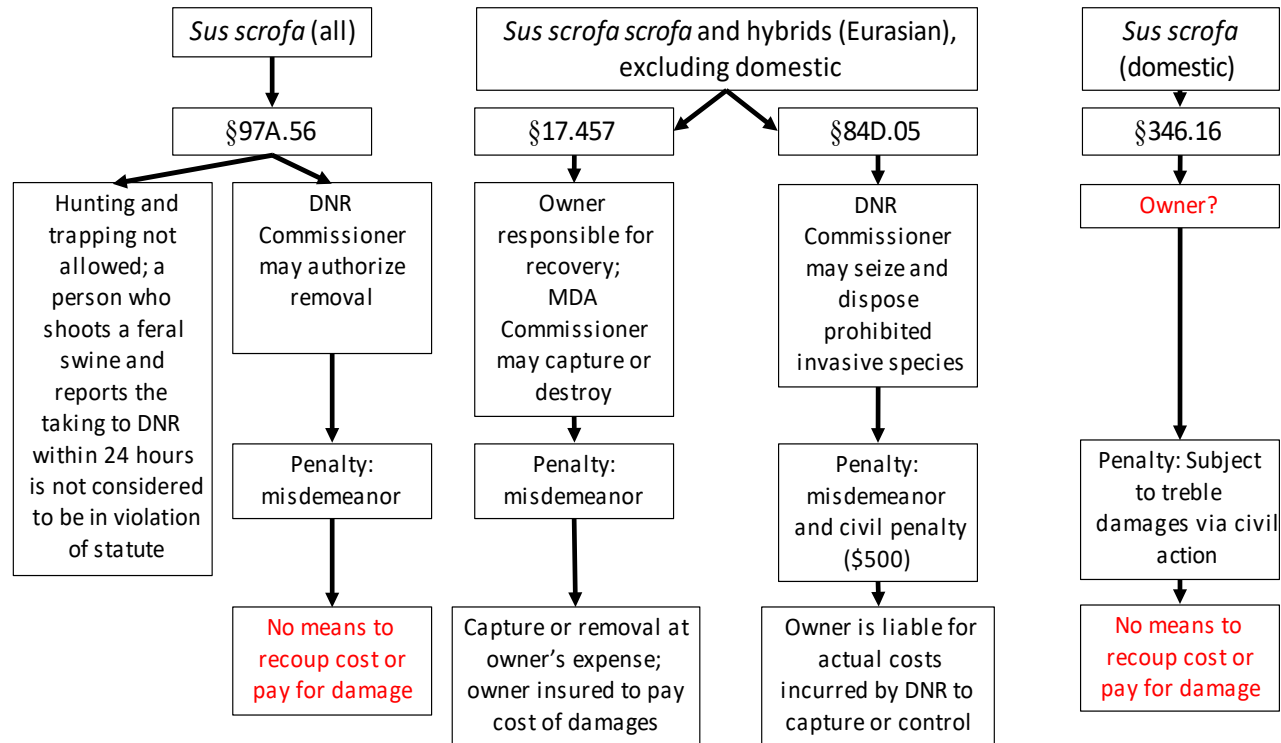
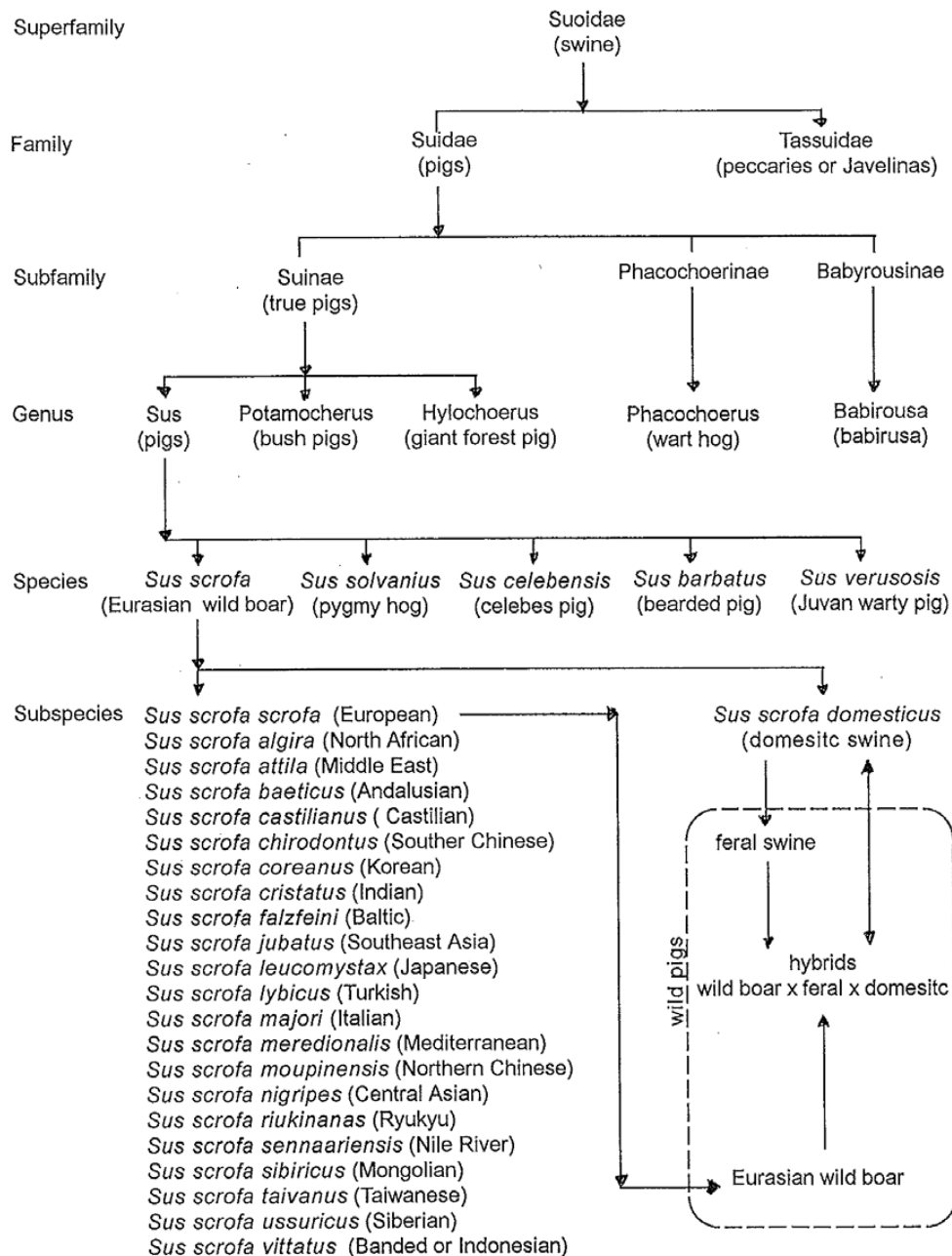


Figure 5. Phylogeny of pigs. *Note: any misspellings are original to source document.*

Source: Feral Swine report to the Minnesota State Legislature, 2010 – [Report 10-0151](#)



References

Please note this section includes websites and hyperlinks to sources external to the DNR or any State of Minnesota entity. DNR took reasonable measures to verify the accuracy and safety of each site and link at the time of report publication. DNR is not responsible for broken links and/or other malfunctions that occur after publication.

Aschim, R.A. & Boork, R.K. (2019). Evaluating Cost-Effective Methods for Rapid and Repeatable National Scale Detection and Mapping of Invasive Species Spread. *Scientific Reports*, 9:7254. <https://doi.org/10.1038/s41598-019-43729-y>

Centers for Disease Control and Prevention. (2023, December 10). Animals and COVID-19. <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/animals.html>

Lowe S., Browne M., Boudjelas S., De Poorter M. (2000). *100 of the World's Worst Invasive Alien Species A selection from the Global Invasive Species Database*. Published by The Invasive Species Specialist Group (ISSG) a specialist group of the Species Survival Commission (SSC) of the World Conservation Union (IUCN), 12pp. First published as special lift-out in *Aliens* 12, December 2000. Updated and reprinted version: November 2004. https://www.iucngisd.org/gisd/100_worst.php

Minnesota Department of Natural Resources. (2010). *Feral Swine Report to the Minnesota State Legislature*. 5 pp. [Report 10-0151](#). Accessed 10 December 2023.

Moore, S. J., West Greenlee, M. H., Kondru, N., Manne, S., Smith, J. D., Kunkle, R. A., Kanthasamy, A., & Greenlee, J. J. (2017). Experimental Transmission of the Chronic Wasting Disease Agent to Swine after Oral or Intracranial Inoculation. *Journal of virology*, 91(19), e00926-17. <https://doi.org/10.1128/JVI.00926-17>

Moritz, W.E. and Cornicelli, L. (2023). *Research and Analysis of Policy and Law to Prevent Translocation of Live Feral Swine*. Multistate Conservation Grant Program project #F22AP00690-00. <https://www.fishwildlife.org/afwa-inspires/feral-swine>

United States Department of Agriculture – Animal Plant Health Inspection Service (2023, December 10). *Farm Bill Projects: Feral Swine*. <https://www.aphis.usda.gov/aphis/ourfocus/wildlifedamage/operational-activities/feral-swine/fb-projects>

Appendix A – Relevant Statutes and Rules

Feral Swine

Statute

§ 17.03 – Minnesota Department of Agriculture: Powers and Duties of Commissioner

Describes the MDA powers, duties, and mission.

§ 17.457 – Restricted Species

Defines Eurasian wild pigs and their hybrids as restricted species under the Department of Agriculture.

- Prohibits importation, possession, and release (unless permitted by MDA Commissioner)
- Requires owners of restricted species to notify a DNR conservation officer and the Board of Animal Health of any animal release; owners are responsible for recovery but the MDA Commissioner may capture or destroy released animals at the owner's expense
- Provides for enforcement action by a DNR conservation officer or by the MDA Commissioner; identifies violation of the statute as a misdemeanor
- Requires the MDA Commissioner to develop criteria for approved containment measures
- Requires individuals possessing restricted species demonstrate ability to pay for potential costs or damages caused by any release

§ 17A.03 – Livestock: Definitions

Defines swine as livestock.

§ 35.03 – Board of Animal Health: Powers, Duties, and Reports

Describes the BAH powers and duties.

§ 84.027 – Minnesota Department of Natural Resources: Powers and Duties

Describes the DNR powers, duties and mission.

§ 84D.02 – Invasive Species Management Program for Aquatic Plants and Wild Animals

Requires the establishment of a statewide invasive species program, including coordination among governmental entities and organizations, establishment of aquatic invasive programs, and development of a long-term management plan.

§ 84D.04 – Classification of Nonnative Species

Requires classification of nonnative plants and wild animals – including cultivars and hybrids – as prohibited, regulated, unlisted, or unregulated invasive species and provides criteria for consideration during classification.

§ 84D.05 – Prohibited Invasive Species

Prohibits the importation, purchase or sales, propagation, transportation, or introduction of aquatic plants or wild animals classified as prohibited invasive species and allows seizure or disposal by DNR Commissioner of any prohibited invasive species.

§ 84D.08 – Escape of Nonnative and Invasive Species

Requires a person who allows or causes the introduction of prohibited, regulated, or unlisted invasives species to notify DNR and attempt to recapture or destroy the animal.

- Responsible individual is liable for any costs incurred by the DNR to capture or control animals or their progeny
- Individuals who comply with this statute are not subject to criminal penalties

§ 84D.13 – Enforcement; Penalties

Describes enforcement and penalties under the invasive species Chapter 84D, including a \$500 fee possessing or transporting and prohibited invasive species that is not an aquatic macrophyte. Most of this statute is focused on aquatic invasive species.

§ 84D.14 – Exemptions

Exempts mammals and birds defined by statute as livestock from provisions of Chapter 84D.

§ 84D.15 – Invasive Species Account

Creates an invasive species account in the state treasury, funded by surcharges on watercraft licenses and nonresident fishing licenses as well as the water recreation account, to be used for the management of invasive species.

§ 97A.045 – Game and Fish: Powers and Duties

Describes DNR game and fish related duties, including capture or control of nonnative or domestic animals that are released, have escaped, or are otherwise running at large and causing damage to natural resources or agricultural lands, or are posing a threat to wildlife, domestic animals, or human health.

§ 97A.221 – Seizure and Confiscation of Property

Allows for the seizure of wild animals taken, purchased. Sold, transported, or possessed in violation of game and fish laws or chapters 84 and 84D.

§ 97A.56 – Feral Swine

Defines feral swine as any member of *Sus scrofa* that lives in the wild, prohibits possession or release of feral swine, prohibits hunting or trapping of feral swine unless authorized by the Commissioner for feral swine control or eradication, establishes violation of statute as a misdemeanor, and exempts individuals authorized to take feral swine from liability to the owner.

§ 346.16 – Running at Large; Defined; Prohibited; Treble Damages

Prohibits cattle, horse, ass, mule, sheep, swine, or goat owners from allowing animals to run at large within the state and provides for civil action.

§ 609.74 – Public Nuisance

Describes actions considered to be a misdemeanor public nuisance offense, including the provision of conditions that unreasonably annoys or endangers members of the public or that interferes with or obstruct passage on public highways, rights-of-way, or waters used by the public.

Rule

Chapter 1721 – Board of Animal Health: Animal Health

Establishes requirements to control animal diseases, including animal identification, quarantine, vaccination, testing, disease control and reporting (1721.0020); certificates of veterinary inspection (1721.0040); importation of livestock (1721.0050); swine importation (1721.0190) and swine movement requirements (1721.0200).

6216.0250 – Prohibited Invasive Species

Designates species of aquatic plants and wild animals that are classified as prohibited invasive species, including Eurasian swine/European wild boar (*Sus scrofa scrofa*).

Mink

Statute

§ 17.351 –Fur Farming: Definitions

Defines fur farming and requires that farmed fur-bearing animals, including mink, must be at least from the second generation of captive-bred animals.

§ 17.352 – Agricultural Products and Pursuits

Defines fur farming as an agricultural pursuit, fur-bearing animals within chapter 17 as domestic animals, and the products of fur-bearing animals as agricultural products.

§ 17.353 – Fur Farmer Registration

Establishes a voluntary fur farming registration system within MDA to maintain information for the Commissioner, the United States Department of Agriculture, and other agencies.

- Establishes a fee for registration
- Requires the provision of tags to be used in transport or sale
- Requires annual reports of pelt sales from registered farmers

§ 35.03 – Board of Animal Health: Powers, Duties, and Reports

Describes the BAH powers and duties.

§ 84.027 – Minnesota Department of Natural Resources: Powers and Duties

Describes the DNR powers, duties and mission.

§ 97A.045 – Game and Fish: Powers and Duties

Describes DNR game and fish related duties, including capture or control of nonnative or domestic animals that are released, have escaped, or are otherwise running at large and causing damage to natural resources or agricultural lands, or are posing a threat to wildlife, domestic animals, or human health.

§ 97A.105 – Game and Fur Farms

Establishes license requirements to breed and propagate fur-bearing animals, game birds, bear or mute swans.

- Requires enclosure to sufficiently confine and raise animals in a manner approved by the Commissioner
- Allows for the transfer of a license, the sale of live animals or pelts
- Provides the DNR Commissioner the authority to adopt rules for the issuance of licenses, farm inspections, animal acquisition and disposal, and farm record-keeping or reporting.

§ 336A.02 – Specification of Farm Products

Mink are identified as farm products under Trade Regulations statutes.

§ 346.56 – Unauthorized Release of Animals

Establishes liability for actual and punitive damages associated with unpermitted release of animals confined for science, research, commerce, or education.

Rule

Chapter 1721 – Board of Animal Health: Animal Health

Establishes requirements to control animal diseases, including animal identification, quarantine, vaccination, testing, disease control and reporting (1721.0020); and certificates of veterinary inspection (1721.0040).

Appendix B - Public Input

Public input was collected from November 7-28, 2023, via an online questionnaire on the DNR online public engagement platform; direct mail, email, or phone calls to DNR project managers; and during the November 14, 2023, public meeting. Although DNR attempted to reach a wide variety of audiences in advertising this input opportunity, responses could over represent individuals more likely to be interested in natural resource management (versus agriculture or public health). All input was optional and represents a convenience sample; results should not be inferred to represent the general public's views.

Public Meeting

On November 14, 2023, DNR hosted an online meeting designed to provide background on why the State is assessing current roles and responsibilities related to feral pigs and farmed or released mink and considering potential opportunities for clarifications or improvements in state policy. DNR staff provided a brief introductory presentation and opened the remainder of the meetings for questions or comments from attendees. In total, ten state agency staff participated in the call (five DNR, two BAH, two MDA, one MDH), and there were approximately 60 public attendees. Public participation varied over the course of the meeting; the estimate is based on the largest number of attendees recorded at one time. Over half of the questions and comments were related to mink and mink farming, and included topics including the likelihood of mink becoming feral in Minnesota; current fur farming requirements; opportunities to increase penalties on individuals that release mink without owner's permission; opportunities to place escaped mink in rescue facilities; disease testing and reporting requirements; the risk of spreading COVID between animals and people; and state policy on fur dressing processes, waste management, and slaughter.

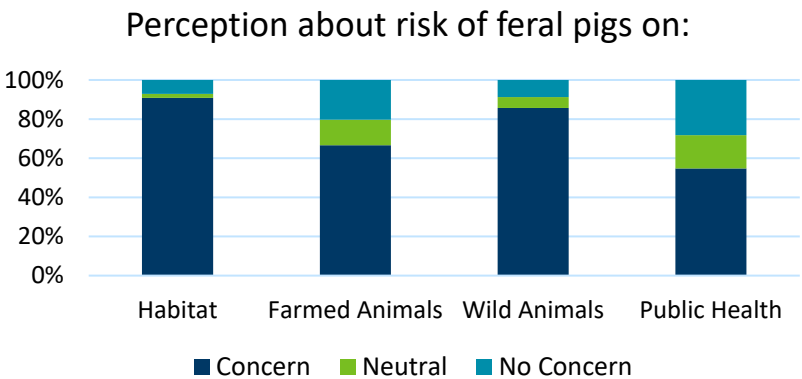
Feral pig questions and comments included topics such as information sharing among adjacent states, monitoring of feral pig populations and potential expansion, the susceptibility of feral pigs to chronic wasting disease and potential risk for spread to other animals (including farmed pigs), whether the State's objective is to keep feral pigs out of Minnesota or to simply minimize damage, the difficulty of controlling feral pig populations and tools to control feral pigs.

Questionnaire Results

DNR collected public input via an online questionnaire from November 7-28, 2023. A total of 262 respondents provided input via this format.

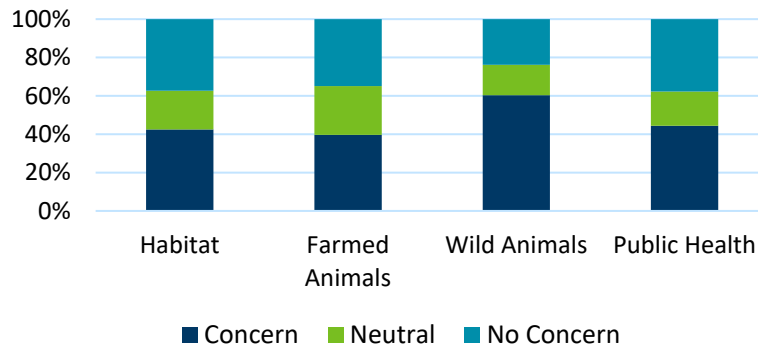
Major themes:

- Risks related to feral pigs:** When asked about perceptions about risks of feral pigs, the majority of respondents indicated concern for habitat (91 percent), wild animals (86 percent), farmed animals (67 percent), and public health (55 percent). Many indicated that they were concerned about increased erosion leading to habitat loss and destruction, resulting in negative impacts on native vegetation, biodiversity and ecosystem function and water quality. Additional concerns raised via open-ended comment included agricultural concerns (crop damage, disease or physical threats to livestock, potential fence damage), the aggressive nature of pigs and human or domestic animal safety, and potential economic impacts (for pork and crop producers/consumers as well as on the deer and bird hunting economy). Respondents also raised concerns about the difficulty and cost of managing pigs once established, the intentional release of pigs, property damage, and pig-vehicle collisions.



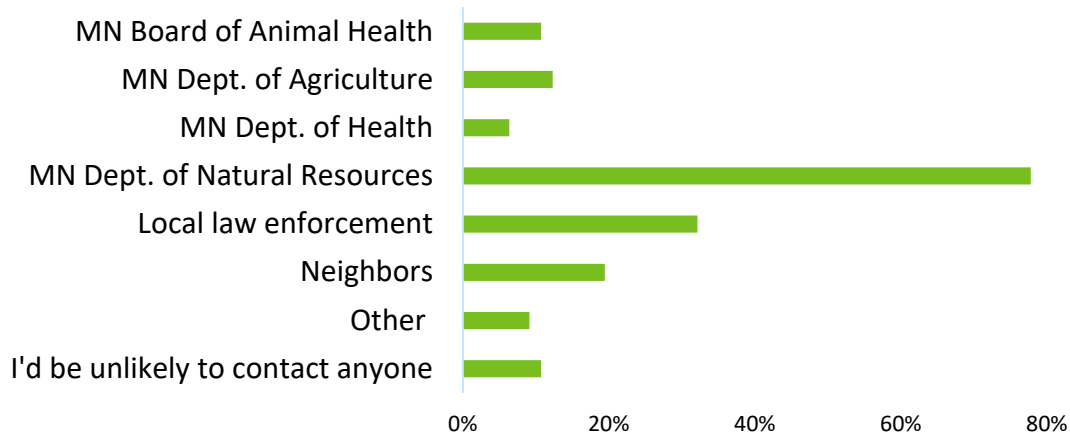
- Risks related to farmed mink:** Mink were considered to be less of a risk than pigs, with only 60 percent of respondents indicating concern for wild animals; a minority of respondents indicated concerns about public health (44 percent), habitat (42 percent), and farmed animals (40 percent). Wildlife concerns were primarily focused on risks to native bird species and bird/nest predation. Many respondents expressed concern about the risks of disease transmission from captive or escaped captive mink. The comments were mostly focused on mink farms being incubators for COVID-19 and the potential for zoonotic disease mutation and new variants. Some respondents discussed their concerns for farm workers contracting diseases or illnesses from captive mink and spreading it to others. Additional concerns raised via open-ended comment included the welfare of farmed mink and desires to ban mink farming as well as concerns about the potential threat to poultry operations if farmed mink are released.

Perception about the risk of farmed or escaped mink on:



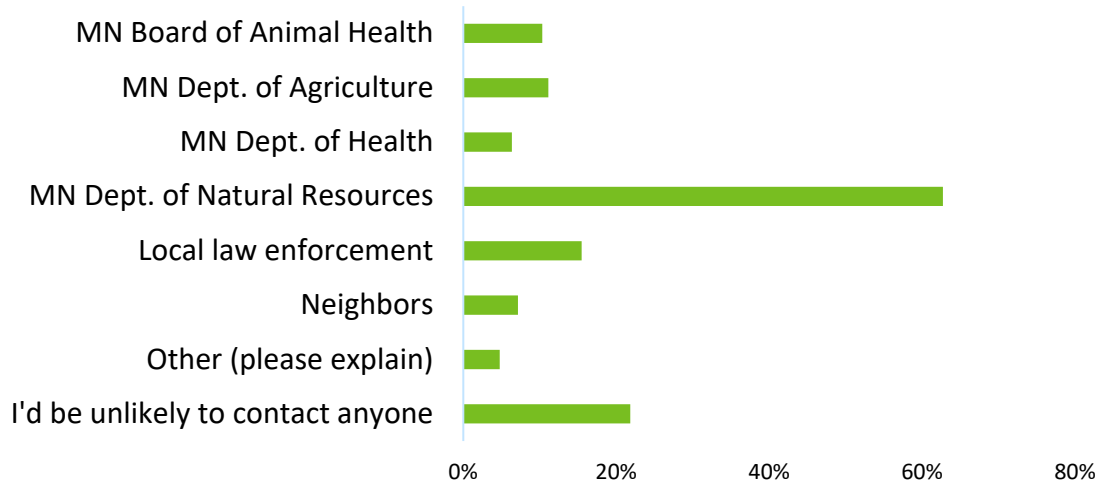
- **Who to contact re: pigs:** When asked who respondents would contact to report a pig observed on the loose, 78 percent indicated they would contact the DNR, local law enforcement came in as second at 32 percent. Notably, 11 percent indicated they would be unlikely to contact anyone.

Who would you contact with questions or concerns about feral pigs or to report a pig observed on the loose?



- **Who to contact re: farmed mink:** When asked who respondents would contact with questions or concerns about farmed mink or escaped mink on the loose, 63 percent indicated they would contact the DNR and 22 percent indicated they would be unlikely to contact anyone.

Who would you contact if you had questions or concerns about captive or escaped mink on the loose?



- Policy/Management Recommendations (feral pigs):** With respect to policy or management recommendations related to feral pigs, roughly one-third of respondents suggested liberal hunting policies, such as unprotected status or bounties for pigs, to assist with feral pig control. Other more frequent suggestions included support for proactive policy and state eradication methods, including a desire for a formal state plan to eradicate pigs and control measures including trapping, shooting from helicopters, the utilization of trained dogs to hunt feral pigs, capture and release, professional hunters, and poisoning. Respondents also recommended the state provide clear and consistent guidance on the feral pig issue, including a position on hunting and clear messaging on what to do if a feral pig is seen. Respondents expressed concern around state agency coordination, mentioning the current confusion around which agencies are responsible for feral pig removal and discussing past unsuccessful invasive species management efforts. Some respondents cautioned that too many state agencies are involved in this issue which could slow down management efforts and would prefer one or two agencies to take responsibility for feral pigs. Other recommendations included the development of a reporting tool, increased public education, increased funding, increased farm regulations and fines, and a reimbursement program for damages.

- **Policy/Management Recommendations (farmed mink):** With respect to policy or management recommendations related to farmed mink, the most common recommendations were to ban mink farming or increase farm regulation. Some respondents recommended the state begin to phase out wildlife farms rather than impose an immediate ban. Respondents focused on increased regulations raised suggestions including stronger government oversight, required secure fencing and infrastructure, and increased inspections. Increases in penalties for release and better control of intentional release by “activists” were also suggested. Over half (51 percent) of respondents mentioned no concern or no comment regarding policy or management recommendations.

Mail, Email, or Phone Communication

In total, 15 emails were received in response to the DNR request for input. One phone call and follow-up meeting occurred and there were no letters submitted. In contrast to the public meeting, most email and phone communication pertained to feral pigs. Feral pig input included suggestions related to containment and non-lethal management (e.g., limit attractants or contraceptives); support for keeping feral pigs out of Minnesota; the negative impacts of feral pigs in other states (e.g., destruction of habitat of ground-nesting wildlife, ability to impact large areas of land, risk to public safety); the inability of other states to control pig populations with liberal hunting and trapping; concern about the cost of control and preferences for hunting opportunities; and suggestions to incentivize control (e.g., implement a bounty, establish a meat donation program, unprotected status and legal take).

Input related to farmed or escaped mink included concerns about the welfare of farmed animals and requests to ban fur farming; desires to ban farming of species native to Minnesota; support for control of wild mink populations; support for mink farming; and a lack of concern about feral mink (e.g., small number of farms poses little risk, biosecurity measures protect health, expected low survival of released mink). One individual suggested that farmed mink should be regulated by the Department of Agriculture and feral pigs should be regulated by DNR.