

BEAVER CONTROL GUIDELINES

For people with beaver damage problems



WISCONSIN DNR
BUREAU OF WILDLIFE
MANAGEMENT

WM-007-20





WISCONSIN **DNR**

TABLE OF CONTENTS

INTRODUCTION

Beaver **Management Plan** 4

OVERVIEW

Beaver Population **Management and Objectives** 5

YOUR OPTIONS

Living **With Beavers** 6

Protect **Your Property**

Discourage Beaver **From Colonizing**

Remove **Dam, Lodge and Beaver**

FREQUENTLY ASKED QUESTIONS

Removal of **Beaver Dam** 10

Removal of **Beaver Lodge and Beaver** 11

HEALTH NOTES AND REFERENCES

Health **Notes** 12

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Chief, Public Civil Rights, Office of Civil Rights, U.S. Department of the Interior, 1849 C. Street, NW, Washington, D.C. 20240.

This publication is available in alternative format (large print, Braille, etc.) upon request. Please call the Accessibility Coordinator at 608-267-7490 for more information.

Front cover: Albrecht Fietz
Inside cover: Brett Billings, USFWS

Like many species of wildlife, beaver may be considered good or bad depending upon past experiences. Some people enjoy and appreciate beaver while others consider beaver destructive pests. Understanding and balancing a mix of societal needs with the biological benefits of beaver is one goal of the DNR's beaver management policy.

The Beaver Management Plan

In 2015, a revised beaver management plan became effective. The plan was created by a beaver task force representing programs, agencies, organization and tribes with interest in beaver management. Considerable input from members of the general public via public listening sessions, webinar and online survey also helped shape the plan. A copy of the 2015-2025 beaver management plan can be found on the WDNR website, search keyword "beaver management".

The 2015–2025 Wisconsin Beaver Management Plan identifies the following goals:

- 1) Stable beaver populations are maintained in suitable habitats throughout Wisconsin while at the same time providing trapping and viewing recreation, and limiting human-beaver conflicts and impacts to resources.
- 2) Habitat management is used as a tool for managing beaver populations.
- 3) Beaver damage is mitigated.
- 4) Education, information and outreach on Wisconsin beaver management is improved.
- 5) Emerging disease threats to beavers and any related zoonotic implications are monitored, investigated, and managed.
- 6) Beaver management is improved by obtaining better information on beaver harvest, population status, ecological impacts, and societal views and values.



Map of Beaver Management Zones and Population Objectives



Recognizing that beaver are considered both beneficial and detrimental, the beaver management plan divides the state into different zones for beaver population management. The goal of “zoning” is to allow for the beaver population to increase, decrease or maintain levels depending on the specific zone population objective. The state’s different management zones are shown on the map. Approved population objectives for each zone are below.

Beaver Zone A: Maintain the Zone A beaver population at its current level (2014) or allow a slight increase.

Beaver Zone B: Maintain the Zone B beaver population at its current level (2014) or allow a slight increase.

Beaver Zone C: Maintain the Zone C beaver population at its current level (2014).

Beaver Zone D: Maintain the Zone D beaver population at its current level (2014) or allow a slight decrease

Beaver Population Management

The Natural Resources Board policy for beaver is to maintain their populations primarily by use of regulated trapping seasons. Modifications to season length (i.e. lengthening or shortening) is the primary management option used to meet population objectives. In years when the population is high the season will be longer so that more beaver are taken and visa versa.

Since the 1980s, the beaver season has started in either mid-October or early-November and run through the end of March or April. In the 1960s when beaver populations were quite low, the season started in February and went only until the end of March or mid-April. In the early decades of 1900, no beaver trapping was allowed because populations were critically low.

The use of bag limits and other trapping regulations are also used to adjust harvest levels and work toward population objectives. The DNR considers recommendations from their Furbearer Advisory Committee in developing specific regulation changes aimed to help achieve zone-specific objectives.

The DNR encourages the use of traps tested and approved through the Best Management Research for Trapping research program. Additional information can be found [here](#).

Annual harvest estimates and pelt prices for beaver can be found within the Beaver Trapper Questionnaire Report found on the DNR website.

Wildlife Services Beaver Control

The [United States Department of Agriculture-Wildlife Services \(USDA-WS\)](#) office cooperates with the DNR, tribes and local governments in cost shared efforts to intensively remove beaver and beaver dams. The objective of this work is to protect high-quality trout streams, critical wild rice resources and various infrastructure throughout Wisconsin.

Landowner Options

If beaver are causing problems on your property or property for which you are responsible there are options available. These options are spelled out in the next few pages. Remember, the following information on controlling beaver activity applies only to beaver causing damage.

State Assistance

DNR assistance is limited to providing information to people with nuisance and problem beaver. This assistance includes instructional materials, pamphlets, advice, clarification of applicable laws, and referral to experienced trappers or private wildlife control companies. The DNR staff will not come out to a problem site and help remove beaver. There is no state damage control or compensation program which reimburses landowners for damages caused by beaver.

YOUR OPTIONS AT A GLANCE

First Option: Learn to Live with Beaver

In many circumstances people who have minor beaver damage problems, such as a beaver chewing trees or ornamental plantings on a lakefront cottage lawn, may elect to do nothing. Learning to live with wildlife and enjoying and understanding the creatures that share their habitat with you may be a good way of dealing with beaver damage. Watching beaver is a great family activity and a good way to interest children in the outdoors. Private landowners should be aware that human developments impact wildlife habitat and can result in the loss of wildlife.

Understanding beaver behavior

It's natural for beaver to chew tree trunks or to cut trees down. Beaver rarely cut down large pines or massive old trees; they prefer willow, poplar, alder, and birch. Trees that are near buildings may be cause for some anxiety if there is a danger of these trees falling on a building. These trees should be protectively wrapped and routinely monitored to discourage gnawing.

Beaver rarely bite and are not aggressive unless provoked. There are very few known cases of beavers carrying rabies. Other human illnesses associated with beaver are explained on page 15 of this publication.

Beaver can provide many hours of "watchable wildlife" enjoyment. Their ponds create excellent wetland habitat and attract many interesting insects, birds, amphibians and mammals. Beavers build dams in order to have deep water for lodges and underwater food piles. If the water is already deep, as in a lake, they do not need to build a dam. Sometimes, instead of a lodge, they burrow into the shore and create a bank den. Beaver ponds are very important in preventing floods and drought. Beaver abandon the pond after they've used most of the edible foods along the shore. When their dams wash out the old pond area becomes a grass or sedge meadow that attracts many other wildlife. If tree growth occurs, the site may again be colonized.



Courtney Celley, USFWS

Second Option: Protect Your Property

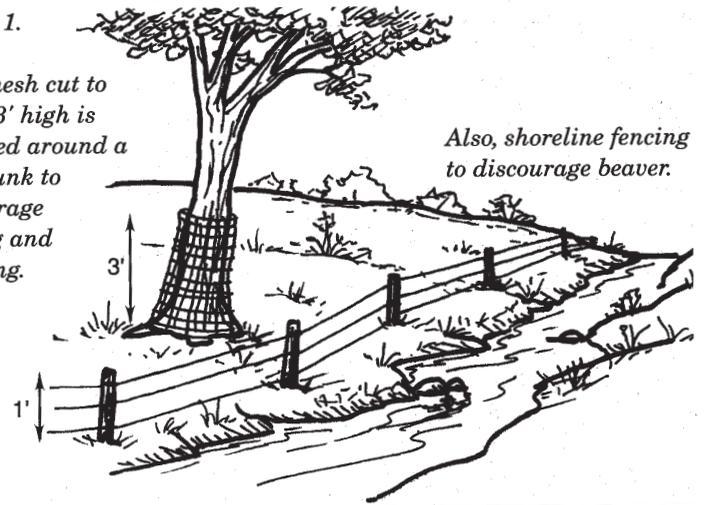
If you're unable to live with beaver damage, there are methods available to prevent damage on a small scale. One set of methods involves protecting trees receiving the damage through fencing. The other set involves protecting trees using repellants.

Fencing Systems

One option to keep beaver from gnawing trees or cutting them down is to fence beaver out. Heavy wire mesh, heavy gauge hardware cloth or tar paper will discourage beaver from cutting and gnawing trees along the shoreline. Figure 1 shows that in general the protective material you choose should be cut to a height of about 3 feet then wrapped around the tree. Mesh size should be less than 1 inch in order to be effective. The wire mesh or hardware cloth can be secured by wiring the ends together. Tar paper can be held in place by bailing twine or wire. This protection is quite effective and inexpensive, especially if few trees are involved.

Figure 1.

Wire mesh cut to about 3' high is wrapped around a tree trunk to discourage cutting and gnawing.



Fencing can be elaborate or simple depending on the individual situation. If you are on the premises full time, then a single strand electric fence suspended about a foot off the ground might provide the solution. If, however, you leave the property for extended periods then maintaining even a simple electric fence may not be practical.

Along the shoreline a low, permanent fence with gates (for human access) may be enough to discourage beavers. Also, individual, ornate fences around each tree you want to protect can be a creative way to keep beavers from gnawing.

Repellents

Experience has demonstrated that chemical and organic repellants provide limited success. Repellents wash away after a time and generally need to be reapplied periodically. In addition, hunger and the availability of other more palatable foods dictate the effectiveness of repellents for beaver. Many nurseries, garden centers, farm co-ops, hardware stores and discount stores sell commercial repellents. Read all labels carefully and do not use the repellents in a manner inconsistent with the labeling.



Third Option: Discourage Beaver from Colonizing

There are two main methods of discouraging beaver from colonizing an area where damage cannot be tolerated. The first is to reduce the desirability of the area by eliminating the foods beaver like and the materials they need to build dams or a lodge. The second method is to alter or undermine their dams so that the dams cannot hold water.

Discouraging beaver by eliminating preferred foods

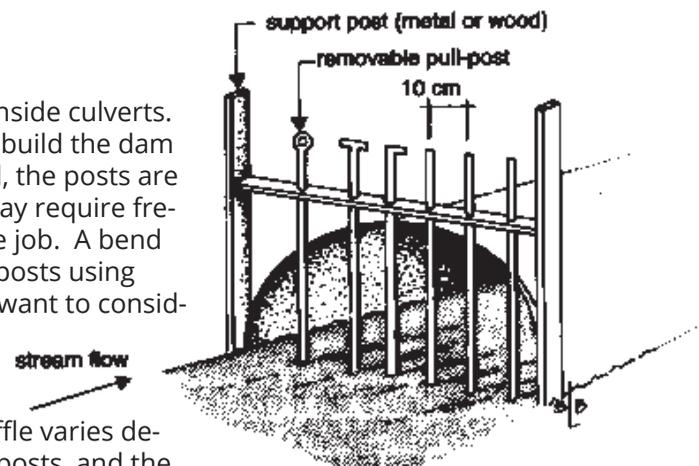
If you get rid of food items that are attractive to beaver you may discourage them from settling. Beaver prefer early successional species such as aspen and birch and land management decisions that affect the availability of these species, especially near streams and lakes, affect beaver habitat suitability. If your objective is to prevent flooding of a roadway or burrowing on the shoreline, then cutting down these kinds of trees eliminates food sources. Removing preferred food sources and planting trees that are not favored by beaver is one option to help discourage beaver colonization on your property. Planting species less desirable to beaver does not guarantee beaver will not gnaw or cut a tree.

Discouraging beaver by undermining their dams

It is important to note the following options are not a "sure thing" and often have limited success. To increase your chance of success, regular maintenance is required.

Beaver baffle for culverts

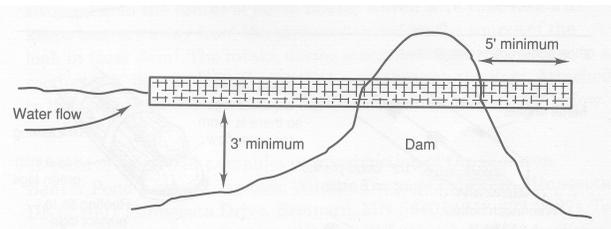
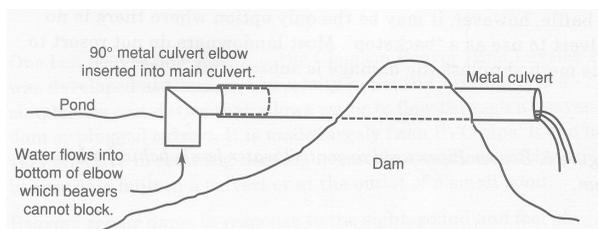
A baffle can be constructed to keep beaver from building dams inside culverts. The figure to the right shows an example of a baffle. Beaver will build the dam against the posts but when most of the dam material is removed, the posts are pulled, and the dam should wash out. This type of abatement may require frequent tending. For small culverts one or two posts should do the job. A bend or hook on top of the pull posts will make it easier to lift out the posts using some type of pulley. To prevent theft of the pull posts, you may want to consider devising an anti-theft bar for the baffle.



There are many variations of the beaver baffle depending on the needs, ingenuity, and materials available. The cost of the baffle varies depending on the number of posts, the material you chose for the posts, and the cost of any welding you might need.

Controlling water levels with a flow device

Water levels in beaver ponds can be regulated so that, although the ponds remain, the water level is not so high that it causes damage. Or, a beaver may get discouraged and move to a new site if it cannot keep the water level high. The left figure below shows an elbow extension on a culvert through a dam. The figure on the right also shows a wire mesh culvert. These methods assume that beaver can't figure out how to dam water flow in these devices.



Culvert constructed of #6 gauge reinforcing mesh panel (10' x 5' piece) covered with #4 gauge, 1"-2" welded wire mesh, attached with #1 hog rings. Bend assembled panels into a cylinder and fasten with #3 hog rings. Cover inlet end with 6" x 6" wire mesh. Three sections (30') are considered a minimum length.

Fencing Options for Culverts

Beaver often plug road culverts with dams. This problem can sometimes be slowed by building a horseshoe, square or triangular shaped fence around the upstream side of the culvert thus preventing the beaver from damming the culvert entrance. Beaver may build their dam around the fence, but it is much easier to remove debris from the fence rather than from the inside of the culvert. The cost of this method of abating beaver damage depends on the size of the fence needed.

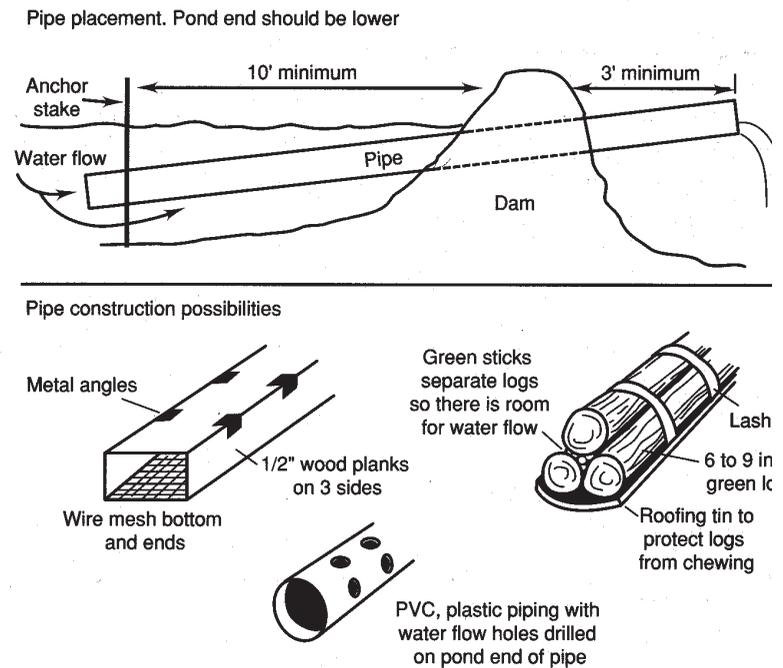
The figure to the right shows a method of installing pipes or troughs in beaver dams in order to control the water level in the pond. Several possible pipe construction methods are also shown. Details of "beaver pipe" construction are found in the article "A Device For Control Of Problem Beavers" (Journal of Wildlife Management, Vol. 27, No. 3, July 1963, by H.A. Laramie). The costs include lumber to make the pipes (or the cost of PVC piping) and labor to install them. This is a more difficult device to install than a fence or baffle, however, it may be the only option where there is no culvert to use as a "backstop".

Another beaver flow device is the Clemson Beaver Pond Leveler. It was developed at Clemson University in South Carolina. It is a simple, low cost device that allows water to flow through a beaver dam or plugged culvert. It is made largely from PVC pipe. It can be very effective in reducing flooding in certain situations, such as a beaver dam built in a culvert or at the outlet of a small pond.

Beavers repair dams in response to the sight, sound and feel of running water. The Clemson leveler transports water through a dam in such a way that beavers can't see, hear, or feel it and as a result, beavers don't attempt to plug the dam.

A detailed pamphlet on construction of the Clemson Beaver Pond Leveler can be found [here](#).

Figure 5. Beaver Pipes used to control water levels behind a beaver dam.



Installing a Clemson Beaver Pond Leveler on Clark Creek in Sauk County

Last Option: Removal of the Dam, Lodge, and Beaver

Removal of the beaver dam, the lodge, and the beaver is generally the last option recommended for the individual landowner because of the difficulty and expense involved. Another reason removal is a last resort is because often, new beaver will recolonize an area from which beaver were removed. The problem of beaver damage may be solved temporarily, but it will probably reappear.

The laws and frequently asked question relating to dam removal, lodge removal, and removal of the beaver themselves are found in the next section.

Legal definitions in Beaver Control

[References: s. 29.885 (1) Stats., NR10.001(16) and NR12.001(1)]

Damage means harm to forest products; streams, roads, dams, buildings, orchards, apiaries, livestock and commercial agricultural crops. Including Christmas trees and nursery stock.

Molest means any activity which results in physical damage or destruction of an object.

Private property holder means an owner, lessee or occupant of private property.

Removal activity means removing or authorizing the removal of a wild animal that is causing damage or that is causing a nuisance or the removal of a structure of a wild animal that is causing damage or that is causing a nuisance.

Remove means capture, shoot, set a trap for, relocate, or otherwise destroy or dispose of.

Laws for Landowners

In the next few sections concerning dams, lodges, and removal of beaver, the pertinent state statues (cited in references as "stats.") or Natural Resources administrative code (cited in references as "NR") are given as references so that you may find and read the exact text if you're interested. Be sure to use the most current versions of the statutes and rules if you are checking further into a specific question. Copies of the Wisconsin Natural Resources Administrative Code and the Wisconsin State Statutes are available at most libraries or on the Internet at: www.legis.state.wi.us. References are given in the following format: Chapter, section, (paragraph), (subparagraph). For example, NR12.10 (b) (3) can be found in Wis. Natural Resources Administrative Code Chapter 12, section.10, paragraph (b), subparagraph (3).



Larry Palmer, USFWS

Beaver Dam Removal Laws - Frequently Asked Questions

Am I allowed to remove a beaver dam on my land?

Landowner, lessees, or occupants may remove beaver dams causing damage or a nuisance without any sort of permit, permission, or authorization from the DNR. [Reference: NR12.10(1) (b)(3)].

How can I remove a dam?

One way to remove a dam is by blasting. All blasters in Wisconsin must be licensed. You may hire licensed blasters to remove a dam on your property. To obtain a list of licensed blasters contact the Department of Safety & Professional Services in Madison at (608) 266-2112. Hiring a blaster with beaver dam experience is recommended. Blasters are not required to carry insurance. Prudent landowners should check their insurance policy for coverage of any damage caused to downstream property from the released pond water as well as any accidental injuries.

Note: Explosives cannot be used to kill or remove beaver; however, explosives may be used to remove their structures, including dams and vacated lodges. You should be aware that unless the beaver have been removed from this area they are likely to return and rebuild.

An alternative to blasting dams is to tear them out using hand tools (a shovel and pick) or a backhoe. However, this is quite difficult and time consuming and is usually not as complete a removal as blasting.

Do I need a permit to remove a dam from a neighbor's land?

No, you don't need any DNR permits to remove a dam on neighboring land. State statutes s. 88.90(3) indicates that an occupant of lands damaged by flooding caused by "natural causes" on a "natural water course" on the property owned by another may enter upon those lands and remove the obstruction at the damage party's own expense. This statute states that this is not trespass. The DNR maintains that it is always good practice to seek consent and permission from your neighbor to remove a beaver dam on their property. If you are considering entering the property of another according to provisions of s. 88.90(3) we suggest you first consult your attorney. Furthermore, you should be aware that this statute does not authorize removal of beaver, only the obstruction. Please keep in mind that removal of the dam will not solve the problem. We hope neighbors will cooperate in solving legitimate problems.

Just what do the terms "landowner" and "lessee" mean?

"Landowner" means any person over 18 years of age and any partnership, firm or corporation that holds title to land whether or not this land is subject to easement, mortgage, lien, lease or restrictive covenant, except that this term does not include any person who is under guardianship, a person who is incompetent or a person who is mentally ill. A person, partnership, firm or corporation holds title to the land if they have any of the following titles: sole owner, joint owner, owner of an undivided interest, sole or joint trustee or sole or joint consignee. Land contract holders are considered landowners.

"Lessee" means any person possessing a written lease for the use of land for the production of commercial seedlings, crops, orchard trees, Christmas trees, nursery stock, honey, and livestock. It doesn't include a person who rents a home or lands for reasons other than commercial production of crops.

Who can authorize dam removal from corporate or publicly owned land where beaver are causing damage?

The board or governing body of the corporation should designate one person responsible for authorization of beaver removal activities. Their signature must appear on any permission given to agents of the corporation who are on the corporation's property for removal activities. Typically, a town chairperson or county supervisor is assigned this responsibility.

Can I enlist other people to help me remove beaver dams, do they need any sort of permit?

Yes, you can hire someone or have unpaid help to remove dams on your property. People who assist in removal activities don't need any permits from the DNR but they must possess written authorization from you, the landowner, when conducting dam removal activities on your property. [Reference: NR 12.10(3)(c)].

Wisconsin Beaver Management Plan 2015–2025

Want to learn more about beavers in Wisconsin? Check out the 2015-2025 Wisconsin Beaver Management Plan, which provides a comprehensive look at the biology and management of beavers in our state.



Brian Foltz

Am I liable for damages a beaver dam on my property causes to the property of another?

Yes. The law states “A person who owns, leases or occupies property on which a beaver structure is causing damage and who fails or refuses to give consent to the department to remove the beaver or the structure to public property or the property of others.” [Reference: s.29.885(6)]. DNR staff would not actually remove the dam. That is the responsibility of the neighbor who wants it removed.

Can I set traps on a dam?

Yes. Anyone may trap on or around a beaver dam. There is no longer a 15-foot setback.

Am I liable for injuries sustained by people helping me to remove beaver dams?

The law dealing with this question gives some protection to the landowner. The statutes outline responsibilities of a property owner for the well-being of anyone entering the property solely to engage in a removal activity. “Private property holder” is defined as including officers, employees and agents.

The landowner owes none of the following duties to a person removing beaver or their structures: to keep the property safe for removal activities, or to inspect the property; or give warning of any unsafe condition, use or activity on the property. In addition, the private property holder is not liable for an injury to a person engaging in a removal activity, or an injury caused by a person engaging in a removal activity.

The landowner is liable for injuries caused by malicious acts and malicious failure to warn against an unsafe condition on the property of which the owner has knowledge. They are also liable for injuries sustained by an employee of the property holder acting within the scope of his or her duties. [References: s. 29.885 (7)].

Beaver Lodge & Beaver Removal Laws – Frequently Asked Questions

Can I remove a lodge?

Yes. However, nobody can use explosives to remove an active beaver lodge. Written authorization from the DNR is required before a vacated beaver lodge may be removed. Written authorization can be provided by your local wildlife biologist. County biologist can be found by searching the staff directory on the DNR webpage.

After receiving written authorization from the DNR, a licensed Wisconsin blaster may, at the landowner's directive, use explosives to remove vacated beaver lodges. [Reference s. 29.088 (3) and 29.885 (2)(b) Stats.]. Note: explosives cannot be used to kill or remove beaver; however, explosives may be used to remove their structures.

In addition, written authorization from the DNR is required to mechanically remove a beaver lodge or modify a lodge to facilitate removal of the beaver.

How will it be determined that a lodge is vacated?

DNR personnel may ask for proof that at least several beaver have been shot or trapped from this lodge. They may check to see that there is no recent activity near the lodge.

Can I trap on a beaver lodge?

Anyone may trap on, in or around a beaver lodge. There is no longer a 15-foot setback.

Can I remove beaver from my land without a permit?

Yes, landowners, lessees, and occupants are not required to have a DNR permit to remove beaver causing damage on lands under their control. Removal activities can take place year-round. For a land-owner, lessee, or occupant to receive assistance from an agent they must give such a person written authorization [Reference: NR 12.10 (3)(c)].

What beaver removal methods are allowed?

Landowners may shoot or trap beaver causing damage or a nuisance on their own property. Live-trapping is also allowed. [Reference: s. 29.337 Stats.] There are no restrictions on the caliber of firearms that are allowed. A 12-gauge shotgun utilizing #2 or #3 steel shot is an effective choice for shooting beaver. Use extreme caution when shooting near water; bullets and shotgun pellets ricochet easily. Unless exempted, you must comply with shooting hour restrictions. The use of artificial lights is not allowed. You must abide by all other hunting and trapping rules listed in the regulations pamphlets unless you receive exemptions from the DNR. You can't shoot beaver if your property is within a municipality where the discharge of firearms is illegal unless you obtain a permit from the local municipality.

Trapping is highly regulated in Wisconsin and restrictions found in the current trapping regulations, except season dates and certain license exemptions (see below), must be followed when trapping beaver causing damage. The trapping regulations include information regarding size of traps, placement, frequency of checking traps and type of sets. A list of beaver traps and techniques that have passed Best Management Research testing can be found on the [Association of Fish and Wildlife website](#).

You may NOT remove beaver by using explosives, poison, or poison gas [Reference s.29.088 Stats.].

Do I need a hunting or trapping license to remove beaver?

No, the owner or occupant of any land, and any member of his or her family over 12 years of age may hunt or trap beaver on land they control without a license at any time. However, no hunting is allowed in the 24 hours prior to the opening date for deer hunting. [Reference s.29.337 Stats.].

Can I get other people to assist me in removing beaver causing damage?

The landowner may invite others to assist (participate) in the removal of beaver causing damage or nuisance if the following rules are observed:

1. All people assisting in beaver removal must have a valid small game, sports or patron license if they plan to shoot beaver.
2. All people assisting in beaver removal must have a valid trapping license if they plan to remove beaver by trapping.
3. All assistants or participants shall possess written approval from the landowner or lessee when carrying on removal activities.

The landowner, lessee, or occupant may not charge any form of a fee to a person providing removal assistance. The landowner cannot exempt a participant from having a license.

All participants shall meet the requirements of the statutes pertaining to hunter safety and age. All participants must abide by the current hunting and trapping regulations. Copies of the regulations are available at local DNR service centers or online.

Can I remove beavers if I am not a Wisconsin resident?

Yes. Wisconsin allows trapping by non-resident from those states that allow Wisconsin residents to purchase non-resident licenses and trap in that state; this includes all states except Hawaii, Minnesota and Washington D.C. Non-resident licenses require the successful completion of the Wisconsin trapper education course or a comparable, as determined by the Wisconsin Cooperative Trapper Education Committee, trapper education course from another state or province.

Non-residents may purchase a Wisconsin trapping license and therefore are eligible to assist other property owners. If you plan to shoot beaver on property you do not own, you must have a valid non-resident small game license.

Where can I release a live-trapped beaver?

You may not release or relocate beaver to DNR owned lands unless you have a permit from the local wildlife manager. [Reference NR 12.10 (1)(a)(3)]. You do not need a permit to release a beaver on non- DNR controlled lands; however, you must obtain permission from the landowner where the beaver is to be released. In most cases live-trapping and relocating beaver is strongly discouraged. Relocation may be less humane than killing beaver if they do not have time to store food or build a dam before winter or if the new location's habitat cannot support them. You may not keep a live beaver as a pet.

How much does it cost to have a beaver trapped?

Trapper charges vary from nothing (just permission to trap during the open season), to a fee per caught beaver. Sometimes trappers will trap problem beaver just for the permission to trap during the open season. An average colony is occupied by 5 to 6 beaver. If all the beaver are not removed then the remaining individuals will continue to fell trees and build dams. There is no guarantee that even if you remove all beaver from a site it will not be recolonized.

Where can I get a list of beaver trappers?

A list of nuisance wildlife control operators can be found by visiting the Wisconsin Trappers Association website at <https://wistrap.org> and selecting "Nuisance Animal Removal" under the "more" tab.

How can I learn to trap?

Unless exempt, all beginning trappers are required to complete a Wisconsin Cooperative Trapper Education Program (WCTEP) course prior to trapping. Persons exempt from this requirement include: individuals that have purchased a trapping license prior to May 1992; youth under the age of 16 trapping with a mentor; or individuals possessing a valid mentored trapping license.

The Wisconsin Trapper Education courses teach trapping ethics and responsibilities, proper trapping techniques, proper pelt preparation, marketing, basic furbearer ecology and management, and trapping history. The Wisconsin Trapper's Association administers the program in cooperation with the DNR. The class is taught by certified instructors at locations in many communities throughout the state. Those who are interested in taking a trapper education course should visit the dnr.wi.gov and search keyword "Trapper Education".

Health Notes

Beaver dams are located in environments where individuals may come in contact with organisms that can cause disease in humans. These organisms are not visible to the naked eye, so proper precautions should be taken when working in these environments. The most important precaution that can be taken is to not drink water directly from the ponds you are working in and wearing gloves when possible but still washing hands before eating, drinking, or touching your mouth or face. More information on the following organisms and the diseases they can cause in humans can be found on the [Wisconsin Department of Health Services webpage](#). If you experience clinical signs, ensure you provide history of working in these environments to your doctor.

The most common disease associated with still or stagnant water is giardiasis. Giardiasis is an intestinal illness that causes chronic diarrhea. It is contracted by ingestion of a parasite (*Giardia*) that can live in the intestinal system of multiple animals, including humans, dogs, cats, deer, and beaver. The parasite can also live in water that contains fecal matter from these mammals. In beaver control situations, ingestion can occur by drinking contaminated water, or not washing hands after they have been in a beaver pond or have touched a beaver carcass (the parasite can be found on surfaces that have been contaminated, such as fur). Precautionary measures to reduce risk of contracting Giardiasis are to not drink water directly from the source and washing hands before eating, drinking, or touching your mouth or face.

Leptospirosis, blastomycosis and tularemia are all considered uncommon diseases in Wisconsin, however, similar to giardiasis, precautionary measures are suggested. These organisms are also often identified with stagnant water and/or moist environments and soils in wooded areas or along the water's edge. Leptospirosis is an illness caused by bacterium called *Leptospira*. While illness severity can range from mild to severe, clinical signs often include fever, chills, muscle pain and headache. They can also include abdominal pain, vomiting, diarrhea and skin rashes. This bacterium can be excreted from an infected animal or person by their urine which can contaminate water, moist soils or vegetation. Humans can become infected by the bacteria entering their body through abrasions in the skin, contact with mucous membranes, or if they ingest the bacteria. Precautionary measures include wearing protective clothing (waders or similar), boots and gloves to minimize chances of exposure. Additionally, avoiding pond water entering your mouth and washing hands before eating, drinking or touching your mouth or face.

Blastomycosis is a fungal infection caused by *Blastomyces*. This fungal disease can develop when people breathe in air around disturbed dirt that contains the fungus. Care should be taken around dirt that has been disturbed near a water source, brush or excavations. Not everyone will develop disease or clinical signs. This fungus is not spread between animals to people or person-to-person. Clinical signs of infection can include fever or chills, cough, shortness of breath, chest or back pain, tiredness or skin sores that may have crusts or appear to grow in size. Isolated cases of blastomycosis have been linked to beaver dams. If you are tearing apart and disturbing a beaver dam on a dry day when a lot of dust is present, you may be exposed to the blastomycosis spores. Personal protective equipment such as appropriate facial masks or respirators could reduce the chances of spores entering the airways.

Tularemia ("rabbit fever") is most commonly transmitted to people through the bite of infected ticks and biting flies. The bacteria causing the disease, *Francisella tularensis*, can also be spread by direct contact with infected animals (Wisconsin wildlife most susceptible are rabbits, beaver, and muskrat), inhaling bacteria from contaminated soils when they are disrupted, or ingestion by eating contaminated meat or drinking contaminated pond water. Symptoms usually develop in 3 to 5 days and may include a skin ulcer at the site of infection, swollen lymph glands, headaches, chills, , aches and pains. Wearing clothing that minimizes skin exposed to tick and fly bites, gloves while working around beaver or their structures, not drinking pond water and washing hands before eating, drinking or touching your face can reduce the chances of contracting tularemia.

References

- Chapman, J. S. and G.A. Feldhamer (Editors). 1982. Wild Mammals of North America-Biology-Management-Economics. The Johns Hopkins University Press, Baltimore. 1,147 pp.
- Jackson, H. H. T. 1961. Mammals of Wisconsin. University of Wisconsin Press, Madison. 504 pp.
- Knudsen, G. J. 1962. Relationship of Beaver to Forests, Trout and Wildlife in Wisconsin. Wisconsin Department of Natural Resource Technical Bulletin. No. 25. 49 pp.
- Minnesota Department of Natural Resources. 1994. The Clemson Beaver Pond Leveler. MN. DNR, Wildlife Damage Management Program publication.
- Nolte, D., D.H. Arner, J. Paulson, J.C. Jones, and A. Trent. 2005. How to Keep Beaver from Plugging Culverts. USDA Forest Service Technology and Development Program, Missoula, MT. 26pp.
- No Author. 1981. Furbearing Animals of North America. Crown Publishers, Inc., New York. 343 pp.
- Rue III, L. L. 1963. The World of the Beaver. Lippincott Co., Philadelphia and New York. 155 pp.
- Taylor, J.D. and R.D. Singleton. 2013. The Evolution of Flow Devices Used to Reduce Flooding by Beavers: A Review. Wildlife Society Bulletin 38: 127-133.

Other Resources

- [How to Keep Beavers from Plugging Culverts](#)
- [Beaver Damage Management](#)
- [Controlling Beaver Damage](#)
- [Beaver Damage Prevention and Control Methods](#)
- [Beaver Solutions](#)
- [Beaver Damage Control Techniques Manual](#)
- [Wisconsin Beaver Management Plan](#)
- [Pennsylvania Beaver Management Plan](#)
- [Utah Beaver Management Plan](#)



Matt Bolen



Disclaimer – Reference to commercial products and trade names and publication is made with the understanding that no discrimination is intended of those not mentioned and no endorsement by the Wisconsin DNR is implied for those mentioned.