

HUMANE GOOSE- CONTROL SOLUTIONS



A guide to integrated
management programs

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INTRODUCTION

CANADA GEESE IN THE UNITED STATES

The Canada goose has become a part of America's natural landscape, signaling the changing of seasons and bringing nature closer to home. Although many people enjoy the sights and sounds of the familiar "V" formations flying overhead, others are unhappy about the number of Canada geese in some urban areas.

Until relatively recently, Canada goose populations were in sharp decline. Native Americans and Canada geese lived together harmoniously for thousands of years, but egg harvesting, overhunting, and the destruction of wetland habitats by European colonists led to shrinking flocks, and by the early 1900s, Canada geese were disappearing along with many other species of wildlife. Efforts to preserve Canada geese resulted in the establishment of the federal Migratory Bird Treaty Act of 1918. This act offered some protection from hunters and harvesters, and Canada goose populations also benefited from the creation of protective refuges and changes in landscape—particularly, the creation of large, open grassy areas. Populations recovered slowly, but Canada geese proved to be highly adaptable to urban and suburban habitats, making new homes in close proximity to humans.

State governments helped restore goose populations by rounding the birds up during their annual molt, at which time they cannot fly, and transporting them to other states to establish new breeding populations. By the mid-1990s, this relocation effort ceased to be a viable option. Some people viewed the growing goose population as a "nuisance," and the government commenced a program of rounding up and slaughtering geese while they were flightless.

THE DIFFERENCE BETWEEN 'RESIDENT' AND 'MIGRATORY' GEESE

Why do some geese stay in one area year round while others migrate during the colder months? There are several theories. Some geese might have never been strong migrants, or they might have lost their migratory urge. What we know for sure is that geese must be taught the migratory flight path by their parents, so geese who fail to migrate will create further generations of nonmigrating, or "resident," geese. Geese remember their place of birth and return there to breed and rear their young. Many generations of resident geese have been created through trapping and relocation efforts in recent decades because goslings have been separated from their parents and birthplaces. Additionally, some hunters use captive, flightless geese—none of whom can migrate—as "decoys."

Once geese develop an allegiance to an area, they are enticed to stay, especially if the landscape meets their preferred conditions: wide-open areas of lush, freshly mowed lawns with unrestricted access to an open body of water—in other words, most parks, artificial ponds, golf courses, sports fields, residential subdivisions, and corporate campuses.

MANAGING CANADA GEESE HUMANELY AND EFFECTIVELY

MYTHS ABOUT CANADA GEESE AND HUMAN HEALTH

People often want to remove geese from an area because of the misconception that geese or their droppings are a health hazard. No study, however, links Canada geese to any infectious disease that is transmittable to humans or domestic animals. Additionally, geese do not significantly increase the levels of harmful bacteria in ponds and reservoirs. Instead, studies show that pollution from human waste and agricultural runoff can expose both geese and humans to bacterial contamination. The best protective measures include addressing poor water circulation, sediment buildup, overfertilization, and other environmental factors and employing common sense when around potentially contaminated areas.



THE LAW

Because Canada geese are protected under the Migratory Bird Treaty Act, a statute that is managed by the U.S. Fish and Wildlife Service (USFWS), it is illegal to kill, harass, harm, purchase, or sell Canada geese or to disturb their nests and eggs without a federal permit from the USFWS. Some states require an additional permit or a cosignature to be obtained from the relevant state authority.

State regulations and local ordinances may also restrict or prohibit the use of lethal or invasive goose-control measures. In many instances, lethal control options are inappropriate because geese have settled in an urban area where hunting is prohibited or, more frequently, because public opposition to lethal control techniques requires wildlife managers to consider effective, nonlethal alternatives. Outlined below are the advantages of using an effective, humane approach, as well as ways to maximize efficiency.

WHY LETHAL CANADA GOOSE CONTROL DOES NOT SOLVE LONG-TERM PROBLEMS

Lethal control is often not an option because the main method of lethal control, hunting, is dangerous and generally prohibited in residential areas, industrial parks, and sports facilities. Like hunting, capture-and-kill programs are a drain on resources, and they also require annual permit applications and processing times.

Some capture-and-kill programs try to market themselves by offering to donate the birds they kill to food banks. However, toxicology tests and other studies by the U.S. Department of Agriculture (USDA) have shown that carcinogens and neurotoxins in the birds' flesh have potential reproductive and developmental consequences for those who consume them. One New York community that attempted to donate goose flesh to food banks had the flesh tested by the USDA and learned that it was contaminated with high levels of lead, feces, and feathers.

Relocation operations that transplant, rather than kill, Canada geese are not only expensive and labor-intensive, but also often ineffective. Because geese will imprint on the urban environment from which they have been removed, they will most likely return to that site.

Killing or relocating resident geese only provides a short reprieve—if the site is not altered, more geese will move in. The solution lies in addressing the cause of the problem rather than the symptoms: Areas attractive to Canada geese must be modified to reduce feeding and nesting opportunities, restrict access to open bodies of water, and lessen the birds' sense of security.

Altering surroundings in these ways will also cut down on mowing; enhance soil, water, and air quality; reduce the runoff of fertilizers and herbicides; filter the remaining runoff before it reaches nearby water supplies; increase habitats for other native plant and wildlife species; and enhance the area's aesthetic appeal, increasing the opportunities for human enjoyment.

OPTIONS FOR NONLETHAL CANADA GOOSE CONTROL

THINK YOU'VE TRIED EVERYTHING? TRY INTEGRATED MANAGEMENT SYSTEMS

The first thing to remember with any plan is that you shouldn't expect to eliminate geese from the area entirely. The more realistic objective is to reduce the population to a size that residents and/or users of the area find acceptable. Most people don't want to rid the landscape of wildlife completely and will work to create an environment where wildlife populations are manageable.

Another key to success is developing and maintaining an integrated goose-management (IGM) system, or a system that incorporates several techniques into one broad plan, using multiple tactics and frequently changing them. Which techniques you choose and how big a part they play will depend on your particular situation—for example, whether you're dealing with geese who consider the site to be safe, a good nesting site, or a good food source. The goal is to make the site less attractive to geese by using the complementary techniques. Organizations such as GeesePeace, whose contact details are listed at the end of this report, have successfully helped communities and companies develop and implement IGMs that are customized to their particular needs.

Once you have identified how, when, and why geese are using a particular area, you can select the best techniques to make the area less attractive. In addition to changing the habitat, IGMs also focus on changing behavior by employing hazing and harassment techniques, such as making grass less palatable to the birds. These are immediate options that also discourage new populations from settling in the area. For established populations, in addition to long-term habitat modification, IGMs also incorporate reproductive-control options, such as egg addling.

When establishing an IGM, you'll find that many techniques can be implemented by your own staff or by volunteers. IGMs, if they are to be successful in the short and long terms, require substantial time and effort. If the site continues to be attractive to geese, they will re-inhabit the area. The techniques employed by your IGM should be evaluated regularly to ensure the most effective strategies. The following strategies can be included in your IGM:

- habitat modification
- public education
- egg addling
- chemical lawn treatments
- exclusion
- hazing and harassment
- scare devices

HABITAT MODIFICATION

Though it may require the largest financial and labor outlay initially, making the area less attractive to geese is the most effective long-term solution—and should be the most cost-effective one too. Rather than devoting money and human resources to removing geese from an area only to have them come back each year, a properly managed habitat modification plan will keep geese numbers down permanently. The modifications can be made gradually while using the following methods to keep geese away from the area:

- Reduce the food supply.
- Reduce the sense of security that geese have in the area.
- Reduce the ability of the geese to move easily between land and water.
- Reduce the available nesting sites.
- Provide alternate foraging areas.

REDUCE THE FOOD SUPPLY

This is achieved by reducing the size of the area within which the geese feed and by making the food there less palatable. The best way to achieve these two objectives is to replace grass with plants that geese won't want to eat. Resident geese typically prefer to feed on short, frequently mowed and fertilized Kentucky bluegrass.

Replacing bluegrass with tall fescue, prairie plantings, English ivy, wildflowers, common periwinkle, Japanese pachysandra, or similar ground coverings will discourage feeding.

The grass can also be made less attractive to geese by decreasing the amount of young shoots. Increasing the height of the lawn to at least 6 inches and making the grass less nutritious by leaving the lawn unfertilized and unwatered—allowing it to become “naturalized”—will discourage geese from feeding and cut maintenance costs.

REDUCE THE SENSE OF SECURITY

Canada geese are most comfortable when they are able to scan their surroundings for predators. Reduce the size of the lawn or break it up with low shrubs and vegetation until geese no longer feel safe while grazing. Geese prefer a “sight line”—the distance to the nearest potential hiding place for predators—of at least 30 feet. Break up that sight line, and geese won't linger.

Plantings should be kept low enough so that humans can still enjoy the area but should be at least 30 inches tall. Long grasses or shrubs will suffice—the important factor is that the arrangements be dense or staggered so that gaps are not available. (Geese can move through gaps as small as 3 inches wide.) If you plant arrangements that are at least 20 to 30 feet wide, it is possible to retain shoreline access for humans by way of a narrow, winding footpath while still breaking up the sight line of the geese.



REDUCE THE ACCESS BETWEEN LAND AND WATER

A complementary technique for reducing the sense of security for geese is to create not only visual barriers, but also to create physical barriers between land and water. Hedges and shrubs, fences, or boulders, either by themselves or used together, will make a site less attractive to geese. Tall grasses and shrubs are effective but must be planted densely to avoid creating an area that is conducive to nesting.

Another way to restrict access to water is by planting native aquatic vegetation, such as varieties of sedge, bulrushes, reedgrasses, and mannagrasses, to prevent geese from being able to move quickly in and out of the water. This plant barrier should be a few feet wide. It will be enjoyed by other waterfowl and will provide a nursery for fish. If creating an aquatic plant barrier is not possible because of underwater contours, cutting and filling can achieve a stable substrate in artificial lakes and ponds.

REDUCE THE AVAILABLE NESTING SITES

The first and easiest step to take in reducing potential nesting sites is to remove any artificial nesting structures such as tubs, elevated platforms, or any round, depressed container. Next, eliminate islands and peninsulas, and break up any straight shorelines with shrubs or boulders as described above to reduce the sense of security. Any disruption or alteration of nesting sites should be completed well before nesting season.

It is easier to eliminate islands or peninsulas when a human-built lake or pond is in its planning stage. For established human-built water bodies, islands can be removed when the water is drained for maintenance, or the water level can be permanently adjusted to either submerge the islands or connect them to the shore. Other water bodies may be altered using the additional techniques described here, but note that modifying some protected waterways may require an Army Corps of Engineers permit.

PROVIDE ALTERNATE FORAGING AREAS

Geese will resist moving from an area if they are not given an alternative. If an area is set aside nearby that provides geese with the opportunity to rest and forage without interference, they will favor that site over a location where they are impeded, excluded, and harassed.

Therefore, an important element of any IGM is to set aside areas where geese are welcome and have access to water, feeding opportunities, and good sight lines, with little human interference.

PUBLIC EDUCATION

John Hadidian, director of the Urban Wildlife Program of The Humane Society of the United States (HSUS), says, "We need to educate three groups: the public, the wildlife management agencies, and the geese." The techniques outlined above are geared toward educating the geese, and management agencies are now learning that conventional lethal control methods are ineffective, but the public needs to understand its role in contributing to the problem.

Not only does feeding geese bread and other scraps threaten their well-being with a nutritionally deficient diet, but geese who are used to being fed by humans often become aggressive and are encouraged to gather and stay. Crowding in these areas can lead to poor



Public education lets people know why it's in everyone's best interests to let geese forage for themselves.

health and can increase the spread of diseases, such as avian cholera, avian botulism, and “duck plague,” among geese and other birds.

Some communities pass ordinances banning feeding and penalize those who breach these laws. However, unless people understand that feeding Canada geese is bad for geese as well as humans, they tend to ignore such ordinances. The solution lies in educating people on why it is in everyone’s best interests to let geese forage for themselves.

One of the best ways to educate people is to place signs at the site that explain why geese should not be fed. The Washington Department of Fish and Wildlife suggests the following:

- Human food is not good for the geese because it lacks proper nutritional value.
- Feeding attracts more geese than the area can support naturally.
- Geese in high concentrations are more likely to get diseases and parasites.
- Geese eat plants needed for ground cover and erosion control.
- Too many geese in one area may force the municipality to have them killed.
- Goose management costs taxpayers money.

EGG ADDLING

Because egg addling involves physical contact with goose nests and eggs, it requires a federal permit issued by the USFWS, and any person engaging in addling must carry the permit with them in order to comply with the Migratory Bird Treaty Act. Permits can be obtained by contacting the USFWS’ Migratory Bird Management regional offices or the Wildlife Services division of the USDA. Some states also require a cosignature by local authorities.

WHAT IS EGG ADDLING?

Egg addling is a treatment that stops the embryo from developing. Several methods are available, but for humane reasons, some methods are preferred over others. Addling can take the form of oiling, shaking, or puncturing the eggs or removing the eggs and replacing them with substitutes.

Although puncturing and shaking may often prevent the embryo from developing, they are difficult techniques to perform reliably. If done improperly, the embryo can continue to develop and produce a deformed gosling, or the egg might leak, causing geese to renest elsewhere. Therefore, oiling and replacement are the preferred methods.

Oiling involves coating each egg with food-grade corn oil to prevent air from passing through the eggshell, stopping the embryo’s development. Eggs can be dipped into the oil, brushed with oil, or sprayed with oil using a non-aerosol container. Regardless of which method is used, the goal is to coat the egg fully and evenly before it is returned to the nest. Both to keep the handlers’ hands clean and to minimize the transfer of the human scent to the eggs (which can aid predators in locating the nest), latex or vinyl gloves should be worn when handling the eggs. The HSUS reports that oiling is between 95 and 100 percent effective.

Removing and replacing goose eggs involves “tricking” Canada geese into sitting on dummy eggs instead of real ones. Any eggs that are “young” enough to be removed

humanely are replaced with wooden or plastic substitutes of a similar size, color, and weight. Clutches with five or fewer eggs need only three dummy eggs, while larger clutches need four. Eggs will stop developing when they are no longer being incubated. The second stage of this method is retrieving the substitutes from the nests at the end of the season and cleaning and storing them for use in subsequent years.

- ENSURING THAT EGGS ARE ADDLED HUMANELY

It is beyond the scope of this report to provide complete instructions for proper egg oiling and replacement techniques. The HSUS has produced a thorough egg-addling protocol that is available online at http://files.hsus.org/web-files/PDF/WILD_Goose_Egg_Addling_Protocol.pdf. However, egg handlers must be aware of the time limits involved in humanely addling eggs: If geese abandon a nest because no goslings have hatched and if it is early enough in the nesting season, then they might establish a second nest and lay more eggs. Therefore, addling might be required more than once per nesting season, which is generally April through May.

Handlers must be properly trained in assessing whether eggs can be humanely destroyed or if it is too late in the incubation period. It is preferable to addle or remove eggs at the earliest stages of development. Canada goose eggs that are 14 or more days old cannot be destroyed humanely. The best way to assess the age of the eggs is to float them in water. Fourteen-day-old eggs will float just under the surface of the water. Therefore, it is a good idea when planning return visits to nesting sites to plan them no more than 14 days apart.

- WHERE TO LOOK FOR NESTS

Locating nests will become easier after the first attempt because geese tend to nest in the same place each year. Nests usually can be found on islands or peninsulas or near ponds, lakes, and riverbanks. Resident geese may also nest on elevated tubs and planters, platforms, haystacks, stumps, or flat rooftops. Natural and human-built barriers also encourage nesting because they prevent access on one side of the nest and give the geese a good view of the remaining area, so nests may also be found near buildings and fences and at the edges of lawns that are adjacent to tall plants.

Another way to track down Canada goose nests is to look out for an alert and watchful male goose (or “gander”) standing guard. Although he will not usually be near the nest, he will likely be within a few hundred feet. Nests are shallow, round depressions in the soil that are up to 2 feet in diameter. They are made from twigs, grasses, and other vegetation and are lined with downy feathers. Ensure that enough people are available to fend ganders off nests. Bring umbrellas, trash-can lids, or something similar to keep the nest shielded while addling.

CHEMICAL LAWN TREATMENTS

Lawn treatments, or repellents, are aimed at making grass unpalatable to Canada geese and, in some cases, even give geese a visual cue that the grass will be unpalatable, thereby discouraging them from landing. The most commonly used repellent is methyl anthranilate, a nontoxic grape-flavored substance that is used as a food additive by humans but renders grass unpalatably bitter to Canada geese. It is marketed in products such as ReJeXIT and GooseChase, and it trains geese not to feed in certain areas. Geese must have an alternative area for feeding, or they may learn to tolerate the repellent. While the geese are being trained off a particular area, reapplication of the methyl-anthranilate product may be necessary because it is biodegradable and will wash away with rain. If the repellent is applied as soon as geese appear in the area, its effectiveness will increase substantially.

The second available repellent, called anthraquinone, is the active ingredient in a product called Flight Control and is also safe for humans, animals, and the environment. Beyond being unpalatable, it is designed to give geese a strong but harmless digestive irritation. Additionally, Flight Control absorbs ultraviolet light that Canada geese can see but that humans cannot. As the geese learn to recognize areas that have been treated with a substance to avoid, they will go elsewhere to find food. Again, the repellent's effectiveness is enhanced by providing an alternate area for feeding.

Chemical repellents are a particularly useful part of an IGM when opportunities for habitat modification are limited because, for example, there is a high level of human activity in the area, such as at beaches and picnic areas. However, migrating geese who have not been trained by repellents may continue to land in the area, so the use of other techniques will be needed as well.

EXCLUSION

One of the easiest ways to make sure that geese stay off a particular site is by preventing their access to it. Overhead grids can prevent access by air, and low fences can prevent access from the ground. In both cases, a water source usually makes up a large part of the area, and as was outlined above, Canada geese prefer to feed and rest with ready access for escaping. If their ability to quickly move between water and land is restricted, geese will feel less inclined to remain there.

Overhead grid systems, which work best with small bodies of water that do not require frequent human access, utilize a grid of lines spaced about 5 feet apart and suspended about 3 feet above the high water mark. The cord can take the form of wire, stainless-steel

cable, twine, or durable rope, but the material must be clearly visible to geese traveling overhead.

Perimeter fences not only prevent geese from gaining access to particular areas, they can also make the entire vicinity less suitable for feeding and nesting for geese who are unable to fly after their annual molt in late May and early June or who are caring for flightless goslings the rest of the summer. Therefore, fencing is most effective at preventing access between May and July, when geese are either unable or unwilling to fly over the barriers. The area to be protected should be entirely surrounded by fencing. It should be in place before the nesting season starts (to ensure that no flightless geese become trapped upon trying to establish a nest), ideally by February so that it discourages geese from entering the area prior to beginning nesting and molting. The fence does not need to be more than 30 inches high, but it should be closely linked, with openings no larger than 3 inches wide.

HAZING AND HARASSMENT

“Hazing” entails methods that are used to actively and regularly create a situation that makes geese feel unsafe. The counterpoint to this technique is the creation of higher tolerance zones nearby where geese can forage—that is where geese will choose to escape to if they are hazed away from lower tolerance areas.

Hazing geese involves chasing them from the site each time that they arrive. Consistent and persistent application is the key to successful hazing. Not only must geese be hazed every time they arrive, the harassment must also continue until they leave entirely. This technique requires patience and coordination, but its long-lasting effectiveness pays off. Geese learn to think of the site as a dangerous place. Because most communities and organizations with large, open areas lack the time and human resources to thoroughly coordinate the hazing, many have turned, with great success, to the use of border collies.

Canada geese view border collies as a predatory threat and will avoid them—first simply flying away and then ultimately leaving the hazed area entirely. The aim is to make the geese feel unsafe in the area at all times, even though the dogs may only appear occasionally.

Hazing with border collies often involves an initial period of intense activity followed by regular but unevenly timed visits to harass the geese. Most commonly, the dogs are contracted from a service company that provides a trained handler to run the dogs three or four times a day, during the day and night, to prevent geese from becoming accustomed to the routine. If the hazing is done correctly, geese will leave the area after one or two weeks of such frequent visits. This technique complements efforts to modify habitat because geese will feel even less secure from predators in areas that have been adapted in the ways described above.

The border collies who are used to harass Canada geese must be trained and handled properly. If the dogs are handled incompetently and simply chase the geese into the water, the geese will learn that the dogs are not a real threat and will simply wait until they leave. Furthermore, federal



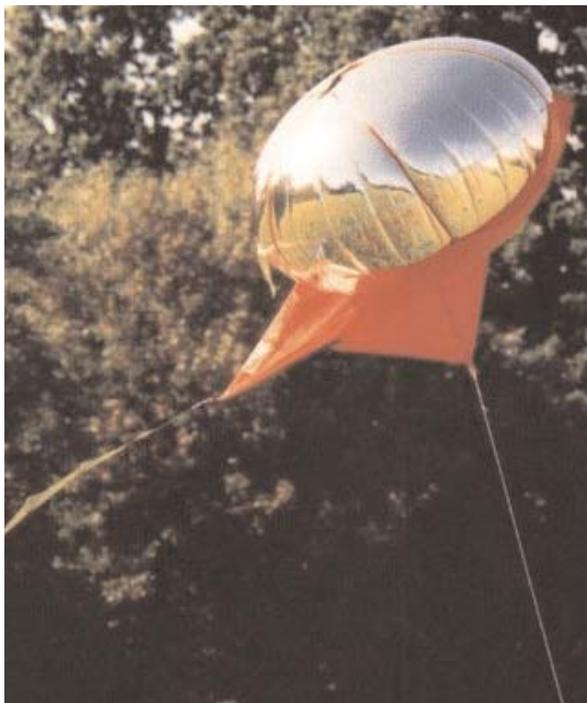
Photo courtesy of Katie Hirsh

law prohibits the handler or owner of the dog from allowing the dog to catch or harm Canada geese or touch nests or eggs. Geese are also far more reluctant to move away from an area where they are rearing goslings who can't fly. Any community intending to use border collies should begin in late February or early March in order to prevent geese from settling into an area and nesting there.

SCARE DEVICES

The techniques and devices described below are not intended to be a long-term solution. Geese are intelligent, adaptable birds, and they will lose their initial fear of most scare devices if they are used repeatedly. Scare devices are more effective when they are used in combination with other techniques. Each technique should be used at varied times and locations, but they are most useful in moving geese away from an area shortly after they've arrived. The longer the geese remain on the site, the harder it becomes to get them to relocate. Therefore, these techniques work best on flocks that are moving through an area, although it may initially appear that the scare devices aren't working if flock after flock of new birds is moving through.

Helikites potentially increase the period during which geese are deterred



The most common scare devices lessen the sense of security in an area by emitting loud and abrupt sounds, mimicking predators, or otherwise startling geese by using the following methods:

- Eyespot balloons and kites
- Flags and streamers
- Scarecrows and effigies
- Mylar tape
- Lasers and strobe lights
- Pyrotechnics and distress-call devices

EYESPOT BALLOONS AND KITES

Commercially available "eyespot" or "scare-eye" balloons are printed with exaggerated eyespots that deter geese. Alternatively, inexpensive Mylar party balloons, which have a bright silvery coating that also makes geese wary, can be filled with helium and staked at regular intervals in open areas. Another product, the "helikite," combines the features of scare balloons with the durability of a kite and moves more vigorously with the wind, potentially increasing the period during which geese will effectively be deterred.

FLAGS AND STREAMERS

A simple way to deter geese is to use thick plastic bags to construct flags (cut the bag along the sides and bottom to create two large flags). Ideally, the flags should be 2 by 3 feet long on a 4-foot pole. A couple of notches should be cut into the plastic to catch breezes. Flags placed at about one per acre should adequately suggest a threat.

SCARECROWS AND EFFIGIES

Scarecrows should be placed before birds arrive, and they should be designed to allow for movement so that geese perceive them as a live threat (e.g., automatically inflating scarecrows that mimic leaping people, which are distributed in the United States by Reed-Joseph International—contact details below). Scarecrows or effigies can also look like geese's predators, such as alligators, coyotes, and owls, but movement is the key—floating "alligators" that move with the current and automated effigies are more likely to deter geese than statues of owls.

MYLAR TAPE

Mylar tape is a thin reflective ribbon that is silver on one side and red on the other. It has been successfully used to make streamers, and it can be used to make temporary fences that deter geese as well. Fences can be made by fastening the tape to stakes (twisted about three times per 100 feet) that are raised about 1 foot off the ground. To deter geese from landing at all, Mylar tape can be used to make streamers on poles similar to the above-mentioned balloon method.

LASERS AND STROBE LIGHTS

Geese view laser spots as predators or physical objects that are coming toward them. Some commercially available lasers are specifically designed to haze birds, both from land and water. The lasers are most effective at nighttime and whenever light is dim. Flashing or rotating strobe lights also cause geese to move off their night roosts and find different foraging areas. Lasers are generally considered safe, but they should be used according to the manufacturer's instructions, and they should never be aimed at roads or aircraft.

PYROTECHNICS AND DISTRESS-CALL DEVICES

Pyrotechnics and noise-making devices, such as sirens, airhorns, whistles, blanks, firecrackers, screamers, whistle bombs, cracker shells, cannons, and exploders, are effective in rural areas. They have limited application, however, in cities and suburbs, where they may be intrusive and restricted by law. Airports, corporate campuses, parks, and golf courses may have some use for these devices, but communities should always check with local police to ensure that they are complying with municipal regulations.

Devices that play species-specific distress calls are less invasive options. Canada geese typically habituate to distress-call recordings more slowly, and their effectiveness is enhanced when used in combination with visual scare techniques.

CONCLUSION

Canada geese are an integral part of America's wildlife, and because of shortsighted relocation programs and habitat destruction, we have made them a fixture of urban life as well. While there is no general consensus with regard to whether Canada geese should be allowed to remain across the urban landscape in large quantities, we have an obligation to use the most effective, humane methods available if their presence must be reduced.

Through a comprehensive program of habitat modification that reduces opportunities for feeding and nesting and lessens an area's attractiveness to geese, coupled with harassment techniques, it is possible to achieve this goal both in the short and long terms. Public education and egg-addling programs can further reduce the size of goose populations without resorting to lethal programs that cause suffering to the geese and polarize otherwise harmonious areas. With a little planning and commitment, humans and geese can both benefit from an integrated, humane goose population-control program.

CONTACT INFORMATION FOR FURTHER ASSISTANCE AND PRODUCTS AND SERVICES

FOR MORE INFORMATION AND ASSISTANCE IN DEVELOPING YOUR GOOSE-
MANAGEMENT PLAN:

GeesePeace
6405 Lakeview Dr.
Falls Church, VA 22041
703-354-1713
info@geesepeace.org
www.geesepeace.org

FOR INFORMATION ON EGG ADDLING AND TO APPLY FOR A PERMIT:

U.S. Fish & Wildlife Service Migratory Bird Regional Permit Offices
<http://www.fws.gov/permits/mbpermits/addresses.html>

FOR SOURCES OF THE VARIOUS PRODUCTS AND SERVICES DESCRIBED ABOVE (THIS LIST IS NOT EXHAUSTIVE AND IS NOT INTENDED TO BE AN ENDORSEMENT BY PETA):

SCARE DEVICES

312-226-2473
www.bird-x.com

Aquatic Eco-Systems, Inc.
 2395 Apopka Blvd.
 Apopka, FL 32703
 1-877-347-4788
www.aquaticeco.com

Gempler's
 P.O. Box 44993
 Madison, WI 53744-4993
 1-800-382-8473
www.gemplers.com

Biocontrol Network (helikites)
 5116 Williamsburg Rd.
 Brentwood, TN 37027
 1-800-441-2847
<http://www.biconet.com/birds/helikite.html>

Margo Supplies, Ltd.
 Ste. 20, Box 11, R.R. #6
 Calgary, Alberta T2M 4L5
 Canada
 403-652-1932
www.margosupplies.com

Bird Barrier America, Inc.
 20925 Chico St.
 Carson, CA 90746
 1-800-503-5444
www.birdbarrier.com

Nixalite of America, Inc.
 P.O. Box 727
 East Moline, IL 61244
 1-800-624-1189
 309-755-8771
www.nixalite.com

Birdbusters
 300 Calvert Ave.
 Alexandria, VA 22301
 1-800-662-4737
 703-299-8855
www.birdbusters.com

Reed-Joseph International Co.
 P.O. Box 894
 Greenville, MS 38702-0894
 1-800-647-5554
www.reedjoseph.com

Bird Guard
 100 State St., Ste. 312
 Erie, PA 16507
 1-800-331-2973
www.birdguard.com

LASERS

Bird-X Inc.
 300 N. Elizabeth St.
 Chicago, IL 60607
 1-800-662-5021

Birdbusters
 300 Calvert Ave.
 Alexandria, VA 22301
 1-800-662-4737
 703-299-8855
www.birdbusters.com

Fly Bye Bird Control Products
 13609 N.E. 126th Pl., #150
 Kirkland, WA 98034
 1-800-820-1980
 425-820-8496
 www.flybye.com

JWB Marketing LLC
 2308 Raven Trl.
 West Columbia, SC 29169
 1-800-555-9634
 www.birdcontrolsupplies.com

Reed-Joseph International Co.
 P.O. Box 894
 Greenville, MS 38702-0894
 1-800-647-5554
 www.reedjoseph.com

SEA Technology
 SEA Technology Center
 1 Sun Plz., Ste. 500
 100 Sun Ave. N.E.
 Albuquerque, NM 87109
 1-888-732-2246
 505-884-2300
 www.shopseatech.com

CHEMICAL REPELLENTS

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 Chicago, IL 60607
 1-800-662-5021
 312-226-2473
 www.bird-x.com

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 Kirkland, WA 98034
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 425-820-8496
 www.flybye.com

Gempler's
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 Madison, WI 53744-4993
 1-800-382-8473
 www.gemplers.com

Nixalite of America Inc.
 P.O. Box 727
 East Moline, IL 61244
 1-800-624-1189
 309-755-8771
 www.nixalite.com

SePRO Corporation
 1-877-554-3373
 www.flightcontrol.com

FENCING

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 757-591-8780
 http://www.virginialakemanagement.com

Aquatic Eco-Systems, Inc.
 2395 Apopka Blvd.
 Apopka, FL 32703
 1-877-347-4788
 www.aquaticeco.com

Lake Restoration, Inc.
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 Rogers, MN 55374
 1-877-428-8898
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 856-866-0640
www.geesechasers.com

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 Various locations
www.geesepoliceinc.com

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