



# Non-Lethal Controls for "Resident" Canada Geese

Presented by  
**The Executive Committee**  
of the  
**Canada Geese**  
**Citizens Advisory Committee**

Hon. Harriet Cornell, *Committee Chair*

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Diane Gruskin

Betty Hedges

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This copy courtesy of the

Coalition to Prevent the  
Destruction of Canada Geese

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1996

TITLE PAGE

**NON-LETHAL CONTROLS FOR “RESIDENT” CANADA GEESE**

A REPORT PRESENTED BY THE EXECUTIVE COMMITTEE  
OF THE CANADA GEESE CITIZENS ADVISORY COMMITTEE

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## INTRODUCTION

This report serves to provide general information about established non-lethal methods (plus egg addling\*) to minimize the impact of "resident" Canada geese in areas where concern about aesthetics and health are greatest.

During the past few years controversy has arisen in Rockland County regarding how best to control "resident" Canada geese. Numbers of these geese have proliferated in certain areas. Some citizens have complained to their municipal officials when the attendant geese feces and feathers impact on their residential property and interfere with full use of parks, golf courses and school yards. There are concerns, as well, regarding health and, water quality.

In view of these complaints and concerns, County Legislator Harriet Cornell determined that it would be productive to convene a Blue Ribbon Panel of experts to address these issues and suggest non-lethal controls. Ms. Cornell formed an Executive Committee consisting of herself, Robert O. Binnewies, Executive Director, Palisades Interstate Park Commission; Betty Hedges, President, Rockland County Conservation Association, Inc.; and Diane Gruskin, Executive Director, Rockland County Environmental Management Council. The committee presented, "A BLUE RIBBON PANEL OF EXPERTS ON CANADA GEESE," September 22, 1993, in the Legislative Chambers to a full house. A transcript of proceedings is available at the Environmental Management Council - 914/638-5709. (See Attachment I for agenda of topics and speakers).

Because public response to the Blue Ribbon Panel was positive, the committee decided to form a Canada Geese Citizens Advisory Committee to continue research on "resident" Canada geese and non-lethal methods to control them.

Diane Gruskin, Executive Director, Rockland County Environmental Management Council, served as Coordinator. Andy Turner, Environmental Issues Program Leader, Cornell Cooperative Extension, was invited to join the Executive Committee to serve as Special Events Coordinator. Mr. Turner was an important addition to the committee since Cornell Cooperative Extension was involved in similar research.

A preliminary public meeting was held on November 30, 1993 at which residents spoke their minds. Using this input, the Executive Committee worked toward establishing the committee. Letters were sent to all five Town Supervisors inviting them to send two appointees to committee meetings. In addition Rockland Audubon, Southern Clarkstown Civic Association, and the Coalition to Prevent the Destruction of Canada geese were invited to choose an appointee. Thomas Maglaras, Nuisance Wildlife Specialist, was invited to participate. Glenn M. Cole, Regional Wildlife Specialist, and Bryan L. Swift, Waterfowl Specialist, New York State Department of Environmental Conservation, were also invited to observe.

\*considered lethal

## **BACKGROUND INFORMATION - CANADA GOOSE (BRANTA CANADENSIS)**

New York is part of the Canada Goose Atlantic Flyway which extends from the northeast of Canada down to Florida. The Canada goose is one of the state's most familiar waterfowl. Many people enjoy experiencing Canada geese as part of nature. They find it exhilarating to observe the geese migrating in V formations, and to hear their call as they fly overhead heralding the seasons.

The Canada goose is readily distinguished from other geese by its black neck and head with a prominent white cheek patch. Its bill, legs and feet are black. The body feathers are gray-brown to dark brown. The life span is approximately 7-9 years. One source of information indicated that fertility spans 4-5 years. Canada geese are monogamous and share the work of raising and protecting the young. Early naturalists did not record Canada geese as a breeding bird in New York State. However, during the past several years more and more geese appear to fall under the category of "resident" geese. Such geese do not honor municipal boundaries. They may fly several hundreds of miles to pursue their natural activities. We have discovered that they are a regional issue, not simply a neighborhood or county issue.

An estimated 20,000-25,000 "resident" Canada geese breeding pairs live in New York State in addition to unknown numbers of non-breeding and juvenile geese. Of the 11 races of Canada geese, none has rebounded as spectacularly as *Branta canadensis maxima*. Considered extinct in the mid-1950s, this large (12 pounds on average) creature now makes up most of the "resident" goose colonies around the country.

According to the last report from a study started in 1990 and coordinated by Dr. Jay Hestbeck, Massachusetts Cooperative Fish and Wildlife Research Unit University of Massachusetts - "resident" geese are, a distinct population different from the migrating geese that pass through New York each year. Reasons and/or theories for this situation include:

1. Introduction of breeding in New York State starting in the 1930's in wildlife management areas.
2. Descendants of game bird flocks raised at large estates during the 1900's and early into the 20th Century.
3. Shift of wintering patterns of migratory geese to the North. Until recent times large numbers of migratory geese wintered as far south as Florida. Now most winter in the Chesapeake Bay area. This may be the case because birds migrating farther south are losing habitat and are subject to greater hunting pressure and may therefore be experiencing lower survival rates. Over the years, those birds genetically inclined to travel greater distances south may have been steadily removed from the population. Some of these birds may opt to become "resident" geese. (New York's Wildlife Resources Cooperative Extension - Bibliography 1.)

4. Less severe winters in the northeast, which keep food supplies from being covered by ice and snow.
5. Fewer predators. However, many threats to Canada geese - primarily to their eggs and goslings - exist in Rockland. Included are: hawks, owls, coyotes, raccoons, skunks, opossums, snapping turtles, crows, domestic dogs, cats, traffic, and some sightings have been made of groundhogs eating the eggs. While we are unaware of any detailed studies on the mortality of suburban waterfowl, a mortality rate of 30% to 50% has been reported. (New York's Wildlife Resources Bibliography 1).

## SUMMARY COMMITTEE WORK

1. The Committee met five times starting in April 1994, concluding in the Fall of 1994.
2. A mission statement was created:  
"We believe a healthy balance can be maintained between wildlife and the concerns of the community."  
  
"Our mission is to:  
\*serve as an educational resource.  
\*provide accurate scientific information.  
\*offer management options to concerned citizens and government leaders.  
\*concentrate only on non-lethal Canada geese control methods, plus egg addling."
3. Research was carried out through 1995. Reference materials are cited in the Bibliography on Page 12.
4. Maps were sent to all town supervisors and village mayors. We requested that they indicate "resident" Canada geese nuisance areas and return the maps to us. Final county-wide maps containing the data received from participating municipalities were prepared by our Summer Intern, Deirdre Eller, and distributed to Committee members and to the towns and villages that supplied information. The maps were self evident. Nuisance areas coincided with expanses of grass located near unobstructed water bodies.
5. Committee members participated in two field trips:
  - A) McFaul Environmental Center, Wykoff, NJ, to see successful planting and grounds maintenance methods employed to control "resident" Canada geese. Peter Both, Director, McFaul Nature Center, successfully controls Canada geese using several methods - his approach allows for a reduction of population in a humane manner.
    1. Reducing grassy expanses by planting trees and shrubs and allowing some areas to turn into meadows.
    2. Establishing large areas of ground cover.
    3. Establishing shrubbery, trees and ground cover around the pond.
    4. Installing vertical walls and fencing to deter pond access.
    5. Using plastic filament fencing and plastic reflective tape to keep geese off of their herb garden.
    6. Restricting public picnicking to a pavilion.
    7. Enforcing non-feeding legislation.

Over the past five years these controls have enabled Mr. Both to lower his number of "resident" Canada geese from 500 to 250 - which he considers a manageable number.
  - B) Spook Rock Golf Club, Ramapo, NY, to witness a Border Collie demonstration organized by Dr. Ann Herriot, Cornell Cooperative Extension. Will Heintz, Superintendent, Hampshire Country Club Mamaroneck, NY, used his Border Collie on command to herd Canada Geese out of the golf club pond and chase them from the premises. (See Attachment 6 for Dr. Herriott's report - "The Use of Trained Border collies to Discourage Geese").
6. Several committee members participated in the New York State Department of Environmental Conservation molting counts carried out in June 1994, 1995 and 1996.

7. Rockland Audubon Christmas Bird Counts over six years were reviewed. According to this data, Canada geese numbers have fluctuated between 1,800 and 3,600. (See Attachment 2 for 1993, 1994, 1995 Audubon reports. See Attachment 3 for bar chart included in surveys supplied by Bryan Swift, DEC Wildlife Specialist).
8. The committee reviewed DEC survey reports prepared by Bryan Swift, which offer information about bird counts as well as molting, relocation and banding. His statistics indicate there may be between 3,000 - 4,000 "resident" Canada geese in Rockland County (see Attachment 3).
9. Betty Hedges, Dr. Gregg Feigelson, Andy Turner and Carl Dornbush volunteered to work with Diane Gruskin on the committee report. Research continued through 1995.
10. Health/Water Quality Issues were examined:

A. Public Health

A synopsis follows, which was prepared by committee member, Dr. Gregg Feigelson of "WATERFOWL DISEASES - WHETHER OR NOT CANADA GEESE PRESENT A THREAT TO PUBLIC HEALTH" - the presentation made at the Blue Ribbon Panel of Experts by Dr. Milton Friend, Director, Wildlife Health Research Center Waterfowl Diseases, US Fish and Wildlife Service, Madison, Wisconsin. This synopsis was compiled from a transcript taped at the Blue Ribbon Panel. (Transcript available at the Environmental Management Council 914/638-5709).

**"BLUE RIBBON PANEL - HEALTH ASPECTS - DR. MILTON FRIEND DIRECTOR, WILDLIFE HEALTH RESEARCH CENTER WATER-FOWL DISEASES US FISH AND WILDLIFE SERVICE; MADISON, WISCONSIN"**

Dr. Friend is Director of the largest program in the world dedicated to the study of waterfowl diseases. His program deals with waterfowl disease at the local, national and international level. He shared with Rockland County his professional assessment of waterfowl diseases as they relate to human health. His message reassured individuals and parents who were concerned about whether or not Canada geese posed a health threat to humans.

He described a variety of diseases to which waterfowl are susceptible including those of viral, bacterial and parasitic origin. Interestingly, while many of the diseases could be lethal to birds, sometimes killing thousands at a time, he made it clear that those discussed do not pose a health threat to humans. Just as harmful bacteria carried by humans poses a greater risk to humans than non-humans, harmful bacteria carried by geese constitute a greater threat to other birds than to humans. Indeed, the mere presence of infectious organisms is insufficient to argue that human health is at risk. There is no significant risk of Canada geese causing serious illness in humans based on current knowledge.

While much controversy surrounds goose populations, it is hard to imagine the vast number of birds Dr. Friend and his colleagues deal with in the course of their research. Situations were described where they were surrounded by literally thousands of birds - sometimes living, sometimes diseased and sometimes dead. On occasion they were "...wading in that stuff, dead birds up to our elbows...". Even having been exposed to such exceptionally intense conditions, he pointed out that, "There is not a single documented case of any of us coming down with any kind of a disease problem as a result of Canada geese."



The extensive records kept on what has been isolated from Canada geese reveal why there are no documented illnesses attributed to these birds. These records show that most of the diseases that people worry about, such as Salmonellosis, are exceedingly rare in geese. Misconceptions are common. For example geese have been mistakenly accused of causing a parasitic condition known as swimmer's itch. Snails are an essential part of the life cycle of swimmer's itch. Snail populations can become infected from a wide variety of sources. The definitive hosts for avian schistosomes species are wild and domestic ducks, geese and other waterfowl, and birds. Therefore, one can not, and should not, focus on the Canada goose as the cause of swimmer's itch. Also, removing Canada geese will not remove the disease. The definitive hosts for mammalian schistosomes include a variety of domestic animals, rodents, raccoons, several other wildlife species, and dogs. Humans are an aberrant host. Dr. Friend concluded by saying, "...we do not have a human health situation, not in the urban goose, not in the wild goose, not in the captive geese that we have also worked with. We do have a lot of diseases out there that can affect people; most of them come from different places and do not come from the Canada goose, and I'll leave you with that."

## B. Water Quality

"The United States Environmental Protection Agency has calculated that run-off (non-point source pollution) from the first hour of a moderate-to-heavy storm in a typical US city will contribute more pollution load than would the city's untreated sanitary sewage during the same period of time." ("Reducing the Impacts of Stormwater Runoff from New Development" - Bibliography 20). In most settings pollution from Canada geese is a very small part of such runoff (also substantiated by the Northeastern Research Center for Wildlife Diseases, Pathology Department, University of Connecticut - Greenwich Conservation Commission Position Paper - Bibliography 2).

- 1) **Greenwich, CT**  
In Greenwich, Ct., where there are large flocks of "resident" Canada geese near water bodies, the Town Department of Environmental Health performed tests on increased bacteria levels in several town ponds shortly after a heavy rainfall. Source of the bacteria could not be traced to the geese. Bacteria levels returned to normal the next day.
- 2) **Kensico Reservoir**  
In the case of Kensico Reservoir where coliform levels are high, non-lethal controls have been put in place to discourage large concentrations of Canada geese and gulls. Methods employed include: noisemakers/harassment; landscaping; fencing and ongoing habitat surveys (see Attachment 7 - Overview of Goosebusters Program Kensico Reservoir, Westchester County).
- 3) Soil erosion around water bodies caused by geese pulling up the grass can be mitigated by substituting ground covers and shrubbery.

It appears that the primary concern here is the unsightly and unpleasant concentrations of droppings rather than a health risk. The extraordinary waterfowl conditions that Dr. Friend's researchers often encounter are certainly more intense than those that exist here in Rockland. Indeed, it is remarkable that none became ill as a result. However, situations do vary, and while a state of imminent danger does not exist in the county, the methods recommended in this report, if implemented properly, should help reduce or eliminate what little risk exists, where it is believed to exist.

## RECOMMENDATIONS

The Canada goose is under Federal protection through the migratory Bird Treaty Act of 1918. This act makes it unlawful to hunt, kill, sell, disturb nests, purchase or possess migratory birds except as permitted by regulations adopted by the Secretary of the Interior. In Rockland County most municipalities have laws against the discharge of firearms. Hunting is dangerously inappropriate for suburban residential neighborhoods. It is our opinion that the best and safest methods for people and geese are non-lethal controls. In line with this view, we make the following recommendations:

### 1. ALTER THE HABITAT

In the wild Canada geese enjoy a varied diet, including grasses, sedges, seeds, berries, aquatic plants, insects and crustaceans. In suburbia the "resident" goose favorite is fertilized, closely mown grass. In fact, a verdant lawn leading to a pond - devoid of surrounding shrubs and trees - is the ideal goose habitat. "If a Canada goose were to design paradise, there would be lots of short, tender grass for grazing, a pond of fresh water for drinking and security, and no predators. It would look almost exactly like a park, golf course, waterfront estate, cemetery or manicured corporate complex." (Smithsonian, December 1994)

#### A. Grass:

- 1) Reduce grassy areas by planting large borders of ground cover. Geese do not like to walk through such plantings.
- 2) Plant trees and shrubs. Geese tend to avoid lawns when they cannot see a water body for a quick getaway.
- 3) Allow grass to grow taller. Geese do not like to walk through tall grass.
- 4) Turn part of a lawn into a wild flower meadow.
- 5) At a golf course increase the rough wherever possible.
- 6) Plant grass less tasty to geese. Substitute fescues for Kentucky Blue Grass.

#### B. Water Bodies:

- 1) Surround with trees and shrubs to obscure escape routes and to intercept the 6 degree takeoff vector of the geese.
- 2) Install vertical rocks and fencing around ponds to limit access.

C. Local Zoning Ordinances Or Land Use Guidelines - could require new developments to include landscape design features that will help prevent or control problems with geese.

### 2. ENCOURAGE CANADA GEESE TO FEED FROM NATURE

A. Discourage feeding by the public in nuisance areas. Such feeding attracts and encourages geese to remain. Feeding also allows birds to become tamer than they should be for their own protection.

B. Pass non-feeding legislation to discourage feeding in certain areas.

- 1) Worked out by Dr. Gregg Feigelson, committee member legislation was passed by Ramapo in June 1994 which prohibits feeding except in designated areas.

C. Similar legislation was introduced by Hon. Charles E. Holbrook, Legislature Vice Chairman, and passed by the County Legislature in March 1995. Such legislation gives a municipality the freedom to continue feeding in unimpacted areas and to use feeding to lure birds away from impacted areas (see Attachment 4).

### 3. INSTALL MECHANICAL BARRIERS

- A. Fences, Hedgerows and other Physical Barriers - are effective tools to restrict movement. In most problem situations, Canada geese tend to walk, not fly, to and from water to feed. A low fence or other barrier to prevent access may be all that is needed to solve a problem.
- B. Land and Water magazine (Jan/Feb 1995) states, "emplacing string around an emergent seeding or planting at a height of 3" - 8" to literally "trip up" the geese is as effective and cost-effective a solution to this problem as we have found so far."
- C. Electric Fencing has been successful at corporate parks and large estates. A 12-inch high electric fence carries a 6-volt jolt, which deters geese, but does not hurt them. (see Attachment 8, Westchester Woman Controls Those Pesky Geese, Rockland Journal News, 3/05/93).

### 4. UTILIZE NOISE MAKERS

Noisemakers used in conjunction with balloons and/or scarecrows will enhance the effectiveness of both.

- A. Auto-exploders - use bottled propane gas and produce a sound similar to that of a shotgun. The noise can be intensified by directing the firing through a hole in the end of a small steel drum from which the opposite end has been removed. The exploder is relatively small, can be set to go off automatically, and can be used for years if given proper maintenance.
- B. Shell Crackers - are special shells that project a firecracker up to 125 yards. They are fired from a 12-gauge shotgun. By using them when geese first arrive in an area, the birds can be persuaded to go elsewhere. To be most effective, the firecrackers should go off under the birds as they come in to land. Be aware that a permit may be required for discharging firearms.
- C. Timed Sirens. These can be combined with flashing lights
- D. Bangers and Screamers- to scare geese at dusk and dawn.
- E. Ordinary banging on pots and pans.

### 5. EMPLOY BALLOONS, PLASTIC STREAMERS, FLAGS AND SCARECROWS AS SCARE TACTICS

- A. Large red, white or yellow balloons, 30" in diameter, or smaller 17" mylar balloons filled with helium and tethered on a 40-50 monofilament line of 50-75 pound test will scare geese. One balloon for every two to ten acres of open area should be effective in the daytime. Large eyespots, located so that the two are always visible from any direction, will increase the balloons' effectiveness. Use in conjunction with noisemaking also increases effectiveness. Balloons may be purchased from local advertising agencies or balloon businesses. Check the Yellow pages.
- B. Scarecrows are a traditional method of controlling birds and may be quite effective. It is not necessary to spend time making an elaborate design in the shape of a human. A loose sack of straw or a wide streamer of plastic may suffice if properly placed in the problem area. It is also important that some part of the scarecrow moves, activated by a breeze.

**SUCH TACTICS NEED TO BE ALTERNATED AND/OR MOVED PERIODICALLY BECAUSE THEIR EFFECTIVENESS IS REDUCED IF THE GEESE BECOME USED TO THEM.**

## 6. METHYL-ANTHRANILATE - REJEX-IT

This deterrent has won approval from the US EPA and the NYS DEC. For information call the manufacturer, RJ Advantage, 800/423-2473.

- A. Dr. Paul Curtis, Wildlife Specialist, Department of Natural Resources, Cornell Couperative Extension, presented a report as part of the Blue Ribbon Panel - METHYL ANTHRANILATE: NATURAL GEESE REPELLENT NON-LETHAL APPLICATION TO GRASS.
- B. Dr. Curtis and Astrid S. Jirka subsequently tested Methyl Anthranilate in Clarkstown parkland - producing a report - ASSESSMENT OF METHYL ANTHRANILATE (REJEX-IT AG-36) FOR REDUCING CANADA GOOSE USE OF TURF GRASS AREAS (see Attachment 5). They were assisted by, committee member, Andy Turner. Excerpts from his press release follow:

"Cornell Cooperative Extension organized two specific experiments in 1994 in response to the Canada goose issue. In cooperation with the Rockland County Canada Goose Citizens Advisory Committee, the Town of Clarkstown, the Department of Environmental Conservation and Cornell University, Cornell Cooperative Extension conducted an experimental test of a bird aversion agent that may be effective on Canada geese. The study, conducted at Kings Park in Congers, attempted to determine whether Methyl Anthranilate (trade name ReJeX-IT AG-36) could be an effective repellent to Canada geese.

Methyl Anthranilate is a naturally occurring sweet flavored compound found in plants such as jasmine, concord grapes and orange blossoms, according to Cornell University Wildlife Specialist, Dr. Paul Curtis, who designed the experiment in Rockland County. "While MA tastes sweet to humans, it is distasteful to many bird species, including Canada geese," says Curtis.

In this experiment, MA proved to have a strong impact on the geese, causing them to move off of the test site immediately after application. However, the aversive effect seemed to wear off after several days as geese returned to the test site to resume feeding. A second application was undertaken using a higher concentration of MA which proved very successful. Overall, the number of geese found in the study area decreased consistently over time, eventually resulting in a total lack of birds on the treated areas by the last day of observations."

## 7. USE OF TRAINED DOGS, INCLUDING BORDER COLLIES

Border Collies have proven highly successful in herding geese out of ponds and grassy areas at golf courses and other facilities. Other obedient breeds and mixed-breeds, when trained, have proven successful as well. See Attachment 6 for a report by Dr. Ann Herriott, Cornell Cooperative Extension - THE USE OF TRAINED BORDER COLLIES TO DISCOURAGE CANADA GEESE.

- A. Locally, Mary Felegy, offers the services of her dog - a trained Border Collie mixed-breed - to chase off "resident" Canada geese. Among her clients are Camp Venture, Sparkhill (sic), and St. Paul's School, Valley Cottage. Ms. Felegy, a Congers resident, can be reached at 914/268-9371.
- B. "Dow Jones and Company Inc. started using two Border Collies (Bert and Bessie) four years ago at their 175-acre corporate headquarters in South Brunswick, NJ. The dogs herd the geese into the pond and then keep circling it. The geese get frustrated because they can't waddle out and eat the grass, so they leave. The company is getting inquiries about them from other corporations and from golf courses." (Smithsonian, March 1995).

8. COMBINATION OF TECHNIQUES SUCCESSFUL AT INNIS ARDEN GOLF CLUB, OLD GREENWICH CONNECTICUT (Smithsonian, March 1995)

“Pat Lucas took over as superintendent of the Innis Arden Golf Club in Old Greenwich, CT in the late 1970's. His strategy for managing geese is two-pronged. 1) Large plastic swans accompanied by small plastic cygnets. "We have three fake swan families on our pond. If geese fly over and see the swans, nine times out of ten they go somewhere else because they know that swans with cygnets are vicious. But you can't just put out swans and live happily ever after. If the geese do land, and you don't do anything, pretty soon the bravest one will go in the water, and then more of them. Pretty soon they're swimming around the swans, and the jig is up.”

Which brings Lucas to his second prong. "We've named it the hunter-ambush approach. If they land on the grass, you have to make them feel hunted. I'll have a guy with a shotgun creep up on them from the woods for 10 or 15 minutes early in the morning or late in the evening. The gander will give out a signal: 'Something's wrong!' They stop eating. All their heads point in one direction, toward the stalker. They start to flap their wings a little. That means they're primed to go. Then the guy comes out of the woods blasting blanks. They take off and won't come back because they get the message.

Sometimes, though, Lucas runs into geese that won't leave, the ones he calls "rogue geese-hard cases." To give these toughs the willies, the ambusher carries a boom box and just before he jumps out shooting, he cranks up a tape of Canada goose distress calls. "You're speaking in their own language. It gets rid of them ." Golf course superintendents from all over the country call Lucas for advice. "The key is, you've got to stop thinking like a human and start thinking like a goose."

9. EGG ADDLING (regulated by Federal permit)

A. Egg addling, considered a lethal method, includes:

- 1) Shaking
- 2) Oiling
- 3) Puncturing
- 4) Freezing

After treatment, some eggs must be returned to the nest or the mother goose will lay more.

B. Within the committee there were two views on egg addling:

- 1) That all eggs-should be addled in each treated nest in order to achieve maximum population control results for this method.
- 2) That one or two eggs be left unaddled for humane reasons so that parent geese could have some young to raise.

10. SUCCESSFUL STRATEGIES USED AT NEARBY MUNICIPALITIES -  
(The New York Times, The New Jersey Section, 7/02/95)

A. Allendale, NJ - The town has been using pistol noisemakers to scare off geese. Town employees shoot off the noisemakers early in the morning, and the loud screech frightens the birds away. So far, it's working; no geese have been sighted in Allendale.

B. Demarest, NJ - Last winter the town hung green flags around the Tenakill Brook, home to dozens of Canada geese. Although vandals have torn down some of the pennants, the goose population has been cut in half, apparently because the flags make the geese nervous. The town chose green because it was aesthetically pleasing. "We didn't want the place to look like a used car lot," a local Councilman said.

C. Woodcliff Lake - In 1992 Washington gave the borough permission to puncture the eggs of geese nesting on an island in Woodcliff Lake Reservoir. In the past three years, more than 1,100 eggs have been destroyed, and officials say the number of geese has decreased.

## 1. RELOCATION

Relocation experiments carried out by the DEC in Rockland County have offered only temporary relief (see Attachment 3).

## CONCLUSION

It is important to note that best results are obtained when several non-lethal control methods are used together in a cycle of implementation, observation and modification.

This committee has researched and demonstrated several possible techniques of a non-lethal nature (plus egg addling), for resolving human/geese conflicts in Rockland County. There is no question that these conflicts and problem areas must be treated on a case by case basis and that certain approaches outlined here may be very effective in certain circumstances and of little or no effect in other areas. One specific approach outlined, methyl anthranilate, has been approved for use in New York State by the NYS DEC. For information, call the manufacturer, R.J. Advantage, at 800/423-2473.

This committee recommends that all of the approaches discussed in this report be examined carefully and implemented where appropriate.

cgreport

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5. TRANSCRIPT - BLUE RIBBON PANEL OF EXPERTS ON CANADA GEESE SEPTEMBER 22, 1993
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7. CANADA GOOSE SURVEYS IN ROCKLAND COUNTY - BRYAN L. SWIFT, WATERFOWL SPECIALIST, NEW YORK STATE DEPARTMENT OF CONSERVATION - FEBRUARY 24, 1994
8. OVERVIEW OF GOOSEBUSTERS (sic) PROGRAM, KENSICO RESERVOIR, WESTCHESTER COUNTY MAY 1, 1994 - DR. GREGG FEIGELSON
9. THE USE OF TRAINED BORDER COLLIES TO DISCOURAGE GEESE - DR. ANN HERRIORT, CORNELL COOPERATIVE EXTENSION - MAY 26, 1994
10. FINAL REPORT ASSESSMENT OF METHYL ANTHRANILATE (REJEX-IT AG-36TM) FOR REDUCING CANADA GOOSE USE OF TURF GRASS AREAS - PAUL D. CURTIS AND ASTRID S. JIRKA, DEPARTMENT OF NATURAL RESOURCES, CORNELL UNIVERSITY, ITHACA, NY JULY 29, 1994
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