

Canada Goose Damage Management

Presented to the Lake Hopatcong Community



By April Simnor, USDA Wildlife Services
September 29, 2022



United States Department of Agriculture (USDA) Animal & Plant Health Inspection Service (APHIS) Wildlife Services (WS)

Provide Federal leadership and expertise to
resolve wildlife conflicts to allow people and
wildlife to coexist.

Focus of Wildlife Services' Program in New Jersey

- Wildlife Disease
- Airport Wildlife Management
- Wildlife Damage Management
 - Technical assistance
 - Direct management operations



WS NJ Field Offices



Presentation Overview

- New Jersey's Canada goose population
- Harassment and deterrents techniques
- Population management
- WS Services



All Native Birds

Have a place and role in the ecosystem

AND

Have aesthetic and recreational value



Migratory vs. Resident Canada Geese

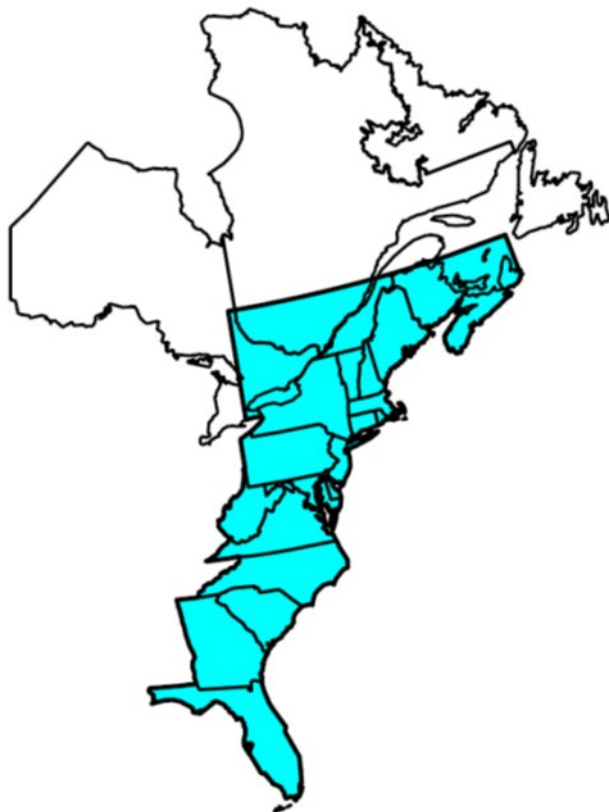
Two behaviorally different populations

NESTING:

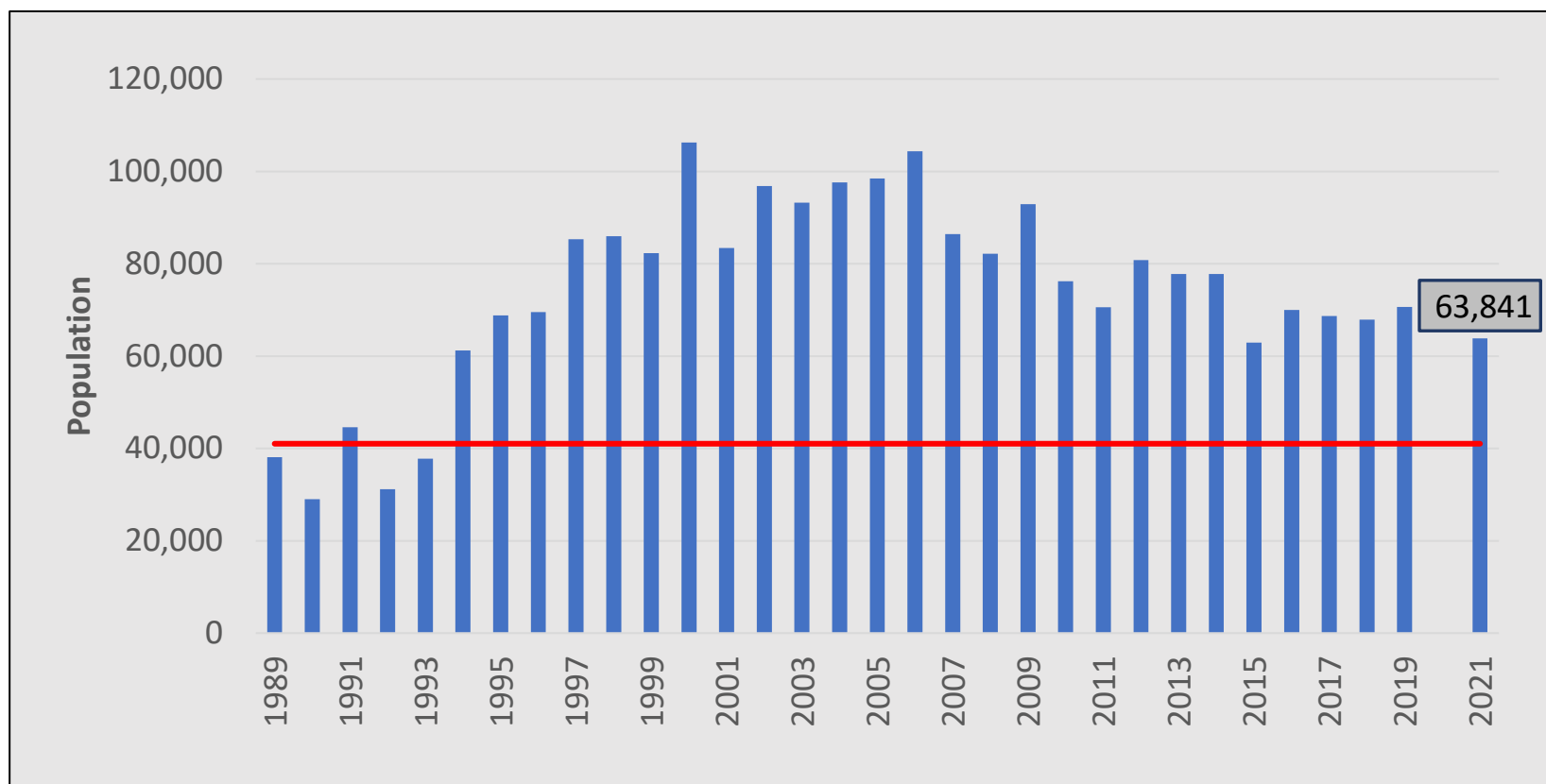
- Geese that nest in East Coast states are considered resident geese
- Geese that nest north of gray area on map are considered migratory geese

MIGRATION:

- NJ's resident geese are found in NJ year round
- Migratory geese are in NJ only during the winter (October-March)



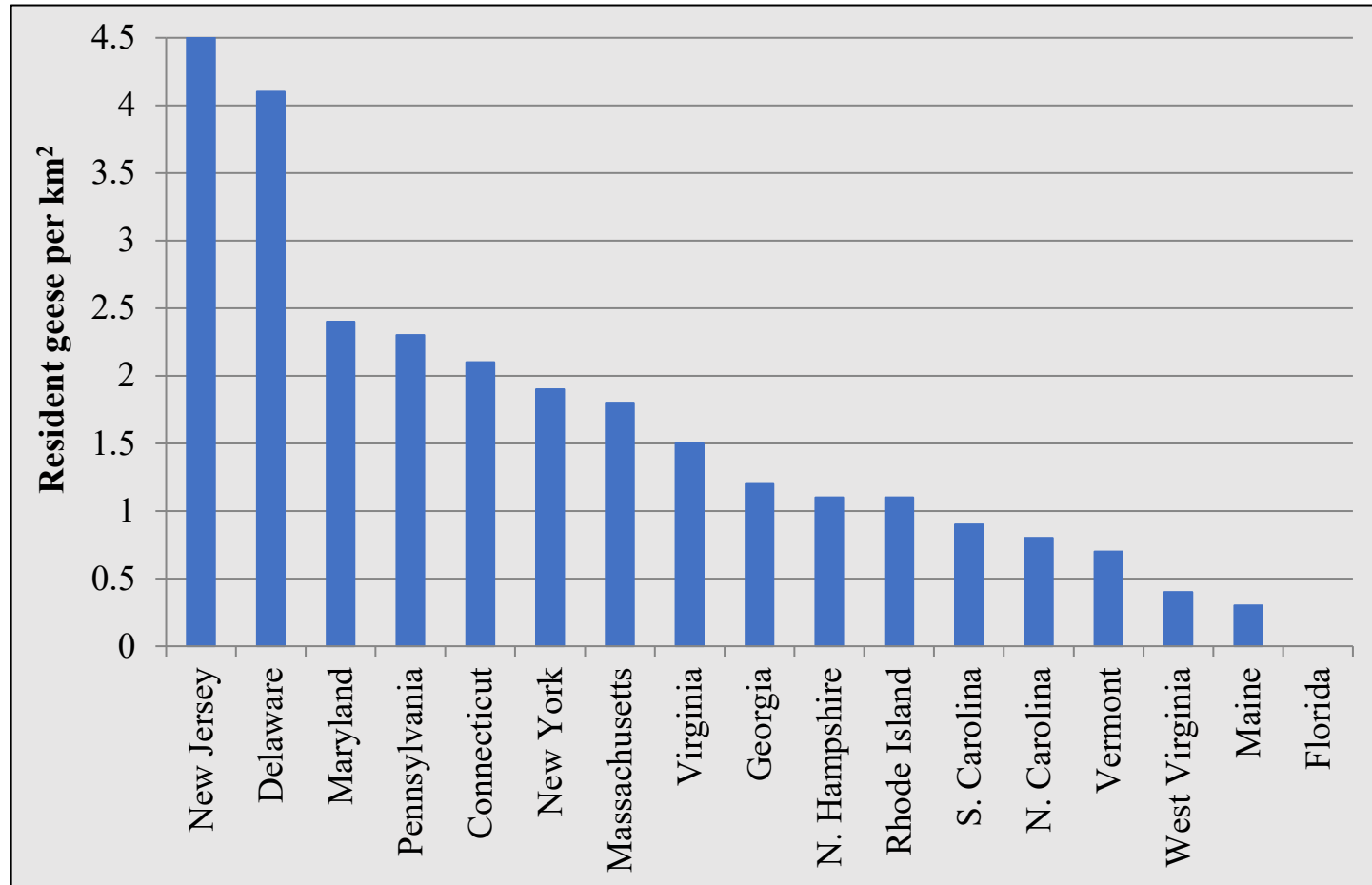
NJ's Resident Canada Goose Population



New Jersey's population objective for resident Canada geese is 41,000 birds based on a mean population from the early 1990's when damage and nuisance complaints were at more tolerable levels.

(Atlantic Flyway Resident Population Canada Goose Management Plan)

Density of Resident Canada Geese



New Jersey has the highest human density in the nation and the highest resident goose density on the East Coast

Canada Goose Biology



- Breed at 3-4 years old
- Live for 20-25 years
- Long-term pair bond, strong fidelity to nesting territory
- Female incubates eggs for 28 days
- Average clutch size is 5 eggs, ranges from 3-10 eggs per nest

Annual Survival of Resident Canada Geese

	New Jersey Urban Geese	New Jersey Rural Geese
Survival Rate:		
Young	82.8%	66%
Adult	72.4%	72.8%
Harvest Rate:		
Young	2.2%	9.7%
Adult	3.8%	7.8%

In addition, success of eggs hatching was found higher in urban than rural areas

All Canada geese, resident and migratory, are protected under the Migratory Bird Treaty Act

A permit or registration is required to handle/take any Canada goose nests, eggs or birds

No permit is required for harassment

Roles of Various Agencies



United States Department of Agriculture (USDA):
Non-regulatory, focus on human-wildlife conflicts



United States Fish and Wildlife Service (USFWS):
Regulatory, oversees migratory bird populations



New Jersey Division of Fish and Wildlife (NJDFW):
Regulatory, oversees wildlife populations within state

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Some of the Human-Wildlife Conflicts with Canada Geese include:

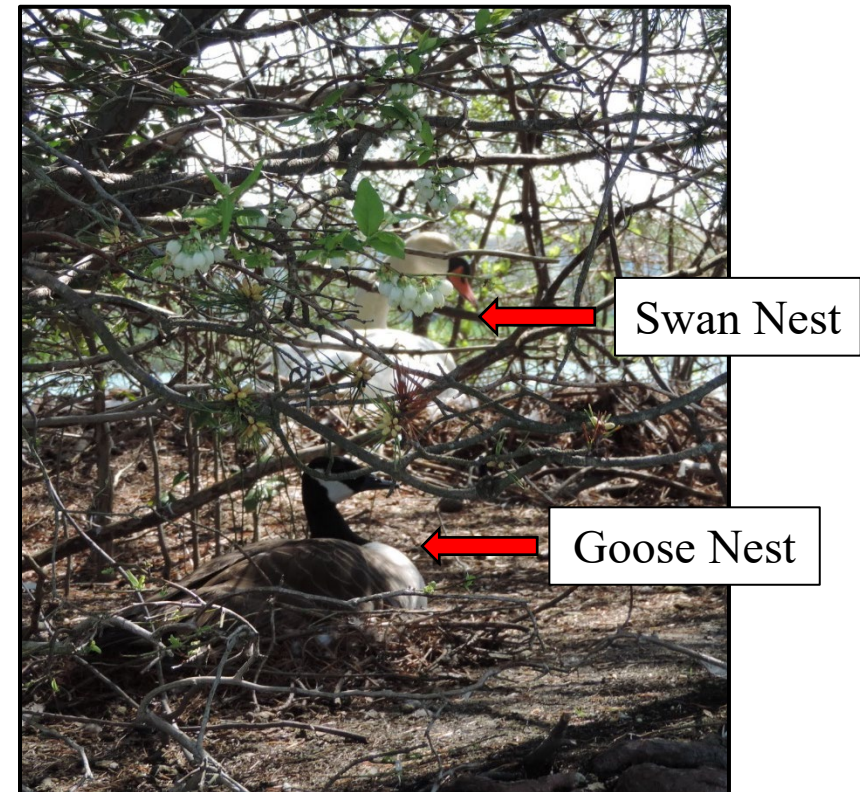


- Fecal accumulations
- Lower water quality
- Aggressive birds
- Property damage to lawns or turf
- Potential disease and health threats
- Road or aircraft hazards

Mute Swans Won't Deter Geese

Do not introduce mute swans to an area

- Non-native species
- Can cause similar conflicts as geese:
 - Fecal accumulation in water
 - Aggressive behavior
- Damages aquatic substrates
 - Consumes 4-8 pounds of vegetation per day
 - Consume less than 50% of what they remove



Integrated Wildlife Damage Management:

The use of multiple methods, such as habitat management, cultural modifications, harassment, and population management, to help alleviate the problem.

There is no single solution!

Integrated Wildlife Damage Management:

HABITAT MGMT:

Eliminate feeding

Habitat
modification

Exclusion

Repellents

HARASSMENT:

Dog or vehicle
harassment

Remote controls
cars/boats

Visual aides

Pyrotechnics

Other auditory devices

POPULATION MGMT:

Regulated sport
hunting

Depredation permits

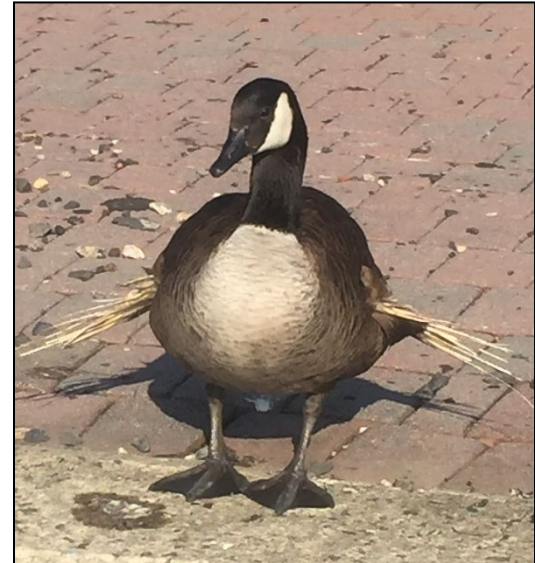
Nest & egg treatment

Capture and removal

Eliminate Wildlife Feeding



Bread has no nutritional value for birds



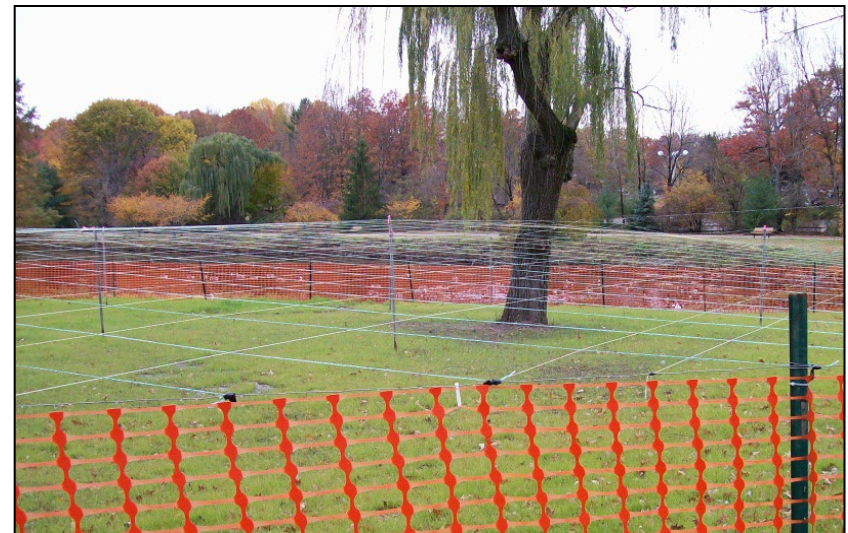
Nutritional defect called “Angel Wing”

Habitat Modification

- Plant vegetation unattractive to geese
 - No succulents
 - Tall native vegetation to reduce line of sight to the water
 - Grasses: Switchgrass, Indian grass, partridge pea
 - Shrubs: common serviceberry, common elderberry
- Increase height of the grass lawn to 8+ inches and reduce the number of tender new shoots
- Adjust mowing plan to eliminate areas where birds are loafing or consuming grass
- Detention ponds for storm water instead of retention ponds
- Turn off water aerators in ponds and allow water to freeze in winter

Exclusion from Water

- Vegetative barriers (30 inches)
 - Planted densely or in a staggered pattern
 - Wide plantings more effective over narrow plantings
- Fencing and/or netting
- Grid wire systems



Repellents

CONTAINS:

**Methyl anthranilate (MA)
OR
Anthoquinone (AQ)**

May also contain UV
additive that changes color of
grass to geese but not
humans



Repellents

Methyl anthranilate (MA)



A grape flavor food additive approved by FDA for human consumption

Used in beverages, ice creams and chewing gum for over forty years

Naturally occurs in concord grapes, blossoms of gardenias and more

Causes minor irritation to the bird's eyes, nose and/or mouth



Repellents

Anthoquinone (AQ)

An organic chemical that occurs naturally in at least 94 known plant species

Geese must ingest; effects the bird's intestines



Harassment is defined as to annoy or disturb persistently

- Dog
- Falconer
- Vehicle, golf cart, kayak, on-foot
- Remote controlled cars or boats
- Paintball gun
- Noise



**Drones are currently not allowed for harassment
of wildlife and birds in New Jersey**

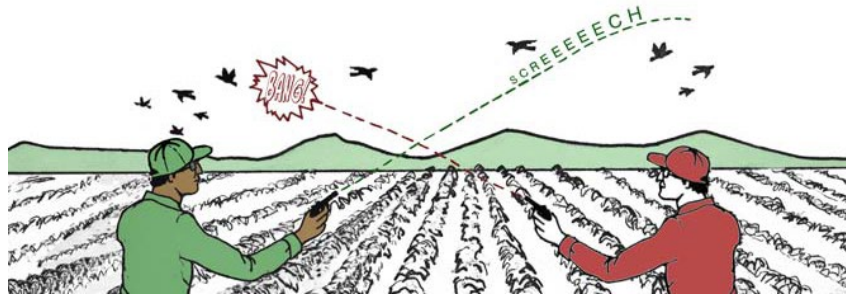
Visual Aides

- Lasers or beacon lights
- Balloons
- Predator decoys / silhouettes
- Flagging / reflective tape



Pyrotechnics

Specialized explosive devices used to disperse nuisance wild animals without injuring them



- No permit for some brands and types of pyrotechnics
- Check with local government for noise ordinances
- Eye and ear protection required; recommend storage in a magazine
- Use caution during dry or windy weather; can be fire hazard

Other Auditory Devices



Air Horn



Propane Cannons



Sound Systems

Bird hear at same level as humans
Ultrasonic devices wouldn't be effective

There is no single solution!



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- New Jersey's Canada goose population
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Population Management



- Canada goose hunting
- Federal Depredation permit
- Molt captures
- Nest and egg management

What is Nest and Egg Management

Reproductive control through treatment (addling) of
Canada goose eggs so that they do not hatch





Federal Depredation Order



- Resident Canada geese nests and eggs
- Valid for one nesting season and must be renewed annually
- Landowners report by October 31 the number of nests and eggs destroyed on their property
- Depredation Order – 50 CFR 21.162



[Version P1.6](#)

Welcome to the Resident Canada Goose Nest and Egg Registration Site. If you are a landowner, homeowner's association, public land manager, or local government in the lower 48 states or the District of Columbia, you may register at this site for federal authorization to destroy resident Canada goose nests and eggs on property under your jurisdiction.

You must register each year prior to taking nests and eggs. You must register between January 1 and June 30 of the year in which the nests and eggs will be destroyed. You must also enter the individual names of employees or agents who may conduct the work on your behalf. You must be at least 18 years of age to register.

Each registrant must return to this site by October 31 to report the number of nests with eggs which were destroyed, for each month and location county. You must report even if you conducted no activity. You will not be able to register for future seasons if you have an outstanding report after 12/31 of the present year..

Please note that some states do not participate in this registration program or have additional or stricter requirements. It is very important that you review the list of State Agency Contacts and Information link below to determine whether you should proceed with registration.

[User's Guide](#)

[Frequently Asked Questions](#)

[Management of Canada Goose Nesting](#)

[Text of Regulation](#)

[State Agency Contacts and Information](#)

[Summary Data](#)

System Requirements: Pages are best viewed at 640 x 480 resolution with Internet Explorer 5.0 or higher. Cookies and JavaScript must be enabled. To view or print online documents, you will need Adobe Reader.

OMB No. 1018-0133

Expires 1/31/2019

Please do not use the internet browser back or next buttons to navigate this site.

To use the Resident Canada Goose Nest and Egg Registration Site, you must have a valid e-mail address.

New User [Click here](#)

to select applicant type and create a login, password, and account profile.

Existing User Login

Required fields are indicated with a red asterisk *

User Login ID

Password

[Forgot User Login ID or Password?](#)

Submit

Exit

- Landowners who obtain free online registration
- Private companies
- USDA - Wildlife Services

Benefits of Canada Goose Nest and Egg Management

- Helps maintain the resident Canada goose population on a local level
- Helps alleviate droppings associated with family groups
- Allows for harassment to be more effective since young not capable of flight are not present



Incubation



- Lay one egg per day
- Start incubation after last egg laid
- Female incubates eggs for 28 days (on nest almost 24/7)
- Female will line nest with down feathers plucked from her belly

Tips on Searching for Canada Goose Nests

- Property should be searched for nests between late March and late May
- Property should be searched every two weeks
- Concentrate search around water sources – ponds, creeks, marshes.
- Some geese nest in plain site while other hide their nests
- When person approaches the nest, some geese may be aggressive, others vacate nest and some try to blend in
- Nest searching and egg treatment should be done annually

WHERE DO GEESE NEST?



Anywhere and everywhere

Typical Nesting Spots





Unusual Nesting Spots



Number of Eggs per Nest

Range = 3-10 eggs

Average = 5 eggs



Egg Size of Common Waterfowl



Mallard
2.3 inches long



Canada goose
3.6 inches long



Mute swan
4.5 inches long

Nest and Egg Addling Techniques



Approved methods include:

- Oiling
- Puncturing
- Shaking

(Freezing is not an approved method under the online registration.)

Recommendations for Lake Hopatcong Community

Integrated Wildlife Damage Management

1. No Feeding Policy
2. Habitat Management
3. Harass from Problem Areas and Install Deterrents
4. Nest and Egg Management
5. Consider Goose Capture
6. Regulated Sport Hunting



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- New Jersey's Canada goose population
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- WS' Services



WS Canada Goose Damage Management



- USDA APHIS WS is a Federal agency that works on a cooperative cost reimbursement basis
- Nest and egg management starts in March and runs into May
- Molt captures occur mid June to mid July
- Harassment activities throughout the year

USDA's Nest and Egg Work

- Conduct work from late March to late May
- Visit site approximately five times (every 2 weeks)
- Each visit, look for new nests and check existing nest
- Puncture (addle) eggs and return them to nest
- Need written permission from landowner before addling eggs when nest is on private shoreline



United States Department of Agriculture

USDA's Form 12A

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE WILDLIFE SERVICES				WORK INITIATION DOCUMENT FOR WILDLIFE DAMAGE MANAGEMENT			
1. WORK INITIATION DOCUMENT NUMBER				2. STATUS <input checked="" type="checkbox"/> NEW <input type="checkbox"/> RENEWAL			
SECTION 1	3A. TYPE OF WORK INITIATION DOCUMENT (mark all that apply)			3B. ASSIGN TO THESE SPECIAL GROUPS			
	<input checked="" type="checkbox"/> PRIVATE PROPERTY <input type="checkbox"/> NON-PRIVATE PROPERTY <input type="checkbox"/> TEMPORARY/CIVIL <input checked="" type="checkbox"/> ADJACENT LANDOWNER <input type="checkbox"/> AMENDMENT TO AN EXISTING WORK INITIATION DOCUMENT			(1) _____ (2) _____ (3) _____ (4) _____			
4. COOPERATOR NAME (last, first, MI)							
5. COOPERATOR MAILING ADDRESS							
SECTION 2	6. COMMON NAME			7. COOPERATOR TELEPHONE NUMBER			
	9. OWNER OR REPRESENTATIVE NAME (if different from Cooperator)			9. OWNER OR REPRESENTATIVE TELEPHONE NUMBER			
	10. OWNER OR REPRESENTATIVE ADDRESS (if different from Cooperator)						
SECTION 3	11. PROPERTY / LAND CLASS INFORMATION			12. ADJOINING PROPERTY WID NO.'s		13. TARGETED SPECIES	
	COUNTY	PROPERTY	LAND CLASS	ACRES			
	A.				A.	A. Geese, Canada	F.
	B.				B.		G.
	C.				C.		H.
	D.				D.		I.
	E.				E.		J.
STATE NJ TOTAL ACRES					<input type="checkbox"/> 14. There are additional targeted species (complete and attach WS Form 12 Addendum)		
SECTION 4	15. In consideration of the benefits to be derived from the proper management of damage caused by those species listed in item 13 (and item 14 if applicable), I, the undersigned Cooperator or Cooperator's representative, do hereby give my consent and concurrence to the Animal and Plant Health Inspection Service (APHIS) (to include its officials, employees, and agents) to use, upon lands owned, leased, or otherwise controlled by me, and identified by this Work Initiation Document, the following methods and devices (COMPONENTS):						
	A. Hand tools		B. Handcaught/gathered		C. Car/Truck		
	D. Boat		E.		F.		
<input type="checkbox"/> 16. There are additional components (complete and attach WS Form 12 Addendum)							
SECTION 5	17. I, the Cooperator or Cooperator's representative, have been informed of the methods and the manner in which the control materials and devices listed in Section 4 will be used, and of the possible hazards associated with their use. I understand that APHIS (to include its officials, employees, and agents) will exercise reasonable precautions to safeguard all persons to prevent injury to animal life other than those listed in Section 3, item 13 (and item 14, if applicable); guard against the mishandling of control devices and materials; and exercise due caution and proper judgment in all wildlife damage management operations. I understand that APHIS WS will maintain restricted use pesticide application records on applications made under the Work Initiation Document, and that APHIS WS will provide copies of the records or record information promptly upon the property owner's or cooperator's request. I understand that APHIS WS may collect Global Positioning System (GPS) coordinates at the project site as part of component or activity tracking or as wildlife disease monitoring or research data. As a Lessee, the Cooperator agrees that the lease is current and will remain so while APHIS WS conducts operational activities on the property, and will notify WS if the lease expires or is canceled. The Lessee agrees to notify the landowner about any methods or devices (components) in use by APHIS WS on the property.						
	18. In consideration of these understandings and of the benefits to be derived, I, the Cooperator or Cooperator's representative, agree to take reasonable precautions to prevent injury to livestock and other domestic animals; assume responsibility for injury to my property under my control when said injury is not the result of negligence on the part of APHIS; assist in maintaining such warning signs as APHIS may place for the purpose of notifying persons entering onto such lands of the possible hazards associated with wildlife damage management measures in use thereon; and to give adequate warning of these possible hazards to persons I authorize to enter onto such lands. Further, in recognition of the benefits to be derived from the use of specified methods and devices authorized by this Work Initiation Document, I, the cooperator or cooperator's representative, agree not to concurrently use or allow to be used upon lands covered by this Work Initiation Document any toxic material that might reasonably be expected to take a species listed above in Section 3, item 13 (and item 14, if applicable), unless such use of said toxicant is agreed to by APHIS in writing.						
SECTION 6	19. SPECIAL CONSIDERATIONS						
20A. LANDOWNER, LESSEE, OR ADMINISTRATOR NAME AND TITLE				20B. SIGNATURE		20C. DATE	
21A. APHIS REPRESENTATIVE NAME				21B. SIGNATURE		21C. DATE	
April Simnor							
21D. APHIS REPRESENTATIVE TELEPHONE NUMBER				21E. STATE OFFICE ADDRESS			
(908) 256-4417				140C Locust Grove Rd, Pittstown, NJ 08867			
WS FORM 12A OCT 2017							



United States Department of Agriculture

USDA's Form 12A

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
WILDLIFE SERVICES

WORK INITIATION DOCUMENT FOR WILDLIFE DAMAGE MANAGEMENT

SECTION 1	1. WORK INITIATION DOCUMENT NUMBER				2. STATUS <input checked="" type="checkbox"/> NEW <input type="checkbox"/> RENEWAL			
	3A. TYPE OF WORK INITIATION DOCUMENT (mark all that apply) <input checked="" type="checkbox"/> PRIVATE PROPERTY <input type="checkbox"/> NON-PRIVATE PROPERTY <input type="checkbox"/> TEMPORARY/CIVIL <input checked="" type="checkbox"/> ADJACENT LANDOWNER <input type="checkbox"/> AMENDMENT TO AN EXISTING WORK INITIATION DOCUMENT				3B. ASSIGN TO THESE SPECIAL GROUPS			
					(1)			
					(2)			
SECTION 2	4. COOPERATOR NAME (last, first, MI)							
	5. COOPERATOR MAILING ADDRESS							
	6. COMMON NAME				7. COOPERATOR TELEPHONE NUMBER			
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SECTION 3	11. PROPERTY / LAND CLASS INFORMATION				12. ADJOINING PROPERTY WID NO.'s		13. TARGETED SPECIES	
	COUNTY	PROPERTY	LAND CLASS	ACRES				
	A.				A.		A. Geese, Canada	F.
	B.				B.		B. swans, mute	G.
	C.				C.		C. ducks, feral	H.
	D.				D.		D. geese, feral	I.
	E.				E.		E.	J.
STATE NJ		TOTAL ACRES				<input type="checkbox"/> 14. There are additional targeted species (complete and attach WS Form 12 Addendum)		
15. In consideration of the benefits to be derived from the proper management of damage caused by those species listed in Item 13 (and Item 14 if applicable), I, the undersigned Cooperator or Cooperator's representative, do hereby give my consent and concurrence to the Animal and Plant Health Inspection Service (APHIS) (to								



USDA's Form 12A

SECTION 4	include its officials, employees, and agents) to use, upon lands owned, leased, or otherwise controlled by me, and identified by this Work Initiation Document, the following methods and devices (COMPONENTS):					
	A. Hand tools		B. Handcaught/gathered		C. Car/Truck	
	D. Boat		E.		F.	
	<input type="checkbox"/> 16. There are additional components (complete and attach WS Form 12 Addendum)					

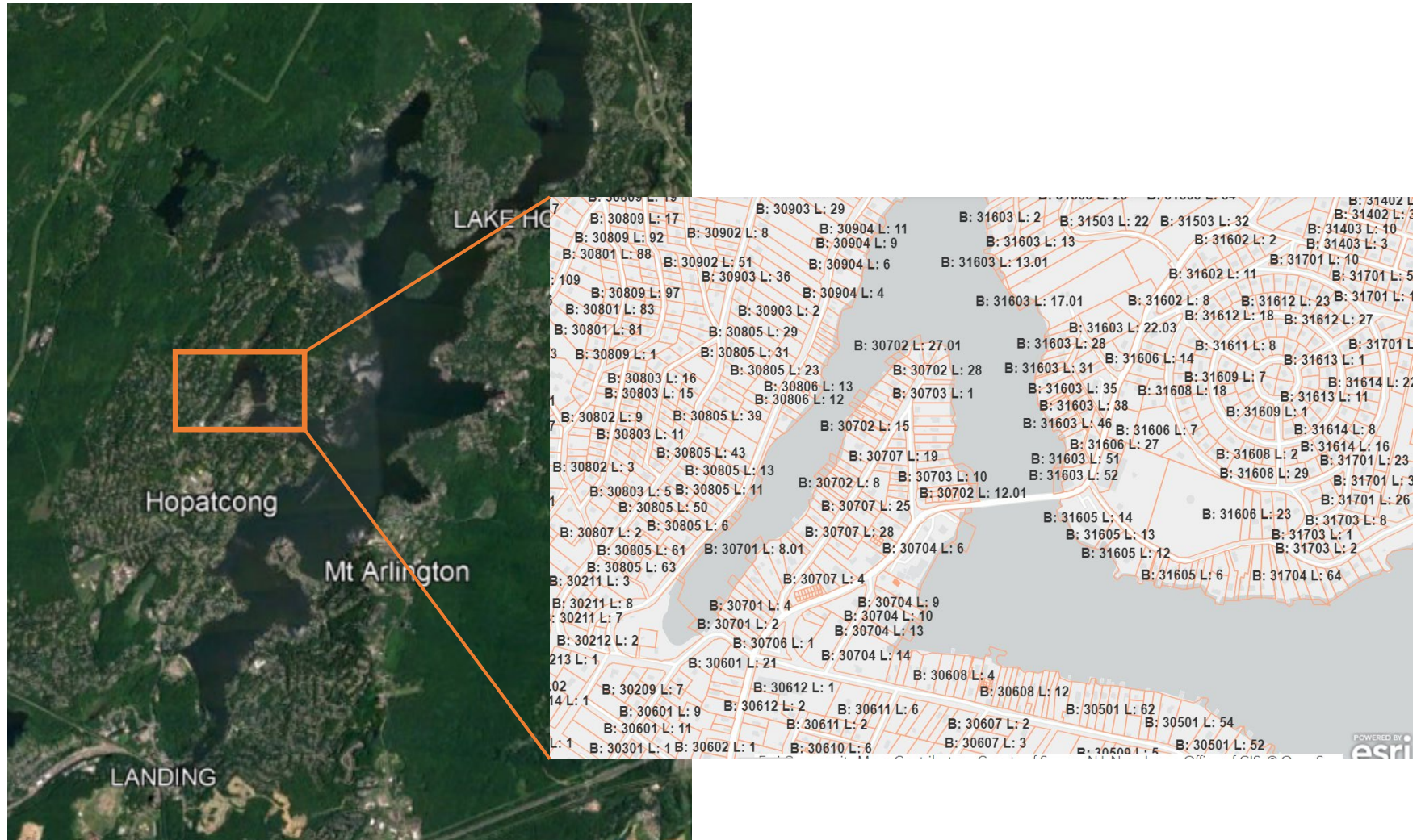
SECTION 5	17. I, the Cooperator or Cooperator's representative, have been informed of the methods and the manner in which the control materials and devices listed in Section 4 will be used, and of the possible hazards associated with their use. I understand that APHIS (to include its officers, employees, and agents) will exercise reasonable precautions to safeguard all persons to prevent injury to animal life other than those listed in Section 3, Item 13 (and Item 14, if applicable); guard against the mishandling of control devices and materials; and exercise due caution and proper judgment in all wildlife damage management operations. I understand that APHIS WS will maintain restricted use pesticide application records on applications made under the Work Initiation Document, and that APHIS WS will provide copies of the records or record information promptly upon the property owner's or cooperator's request. I understand that APHIS WS may collect Global Positioning System (GPS) coordinates at the project site as part of component or activity tracking or as wildlife disease monitoring or research data. As a Lessee, the Cooperator agrees that the lease is current and will remain so while APHIS WS conducts operational activities on the property, and will notify WS if the lease expires or is canceled. The Lessee agrees to notify the landowner about any methods or devices (components) in use by APHIS WS on the property.
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SECTION 6	18. In consideration of these understandings and of the benefits to be derived, I, the Cooperator or Cooperator's representative, agree to take reasonable precautions to prevent injury to livestock and other domestic animals; assume responsibility for injury to my property under my control when said injury is not the result of negligence on the part of APHIS; assist in maintaining such warning signs as APHIS may place for the purpose of notifying persons entering onto such lands of the possible hazards associated with wildlife damage management measures in use thereon; and to give adequate warning of these possible hazards to persons I authorize to enter onto such lands. Further, in recognition of the benefits to be derived from the use of specified methods and devices authorized by this Work Initiation Document, I, the cooperator or cooperator's representative, agree not to concurrently use or allow to be used upon lands covered by this Work Initiation Document any toxic material that might reasonably be expected to take a species listed above in Section 3, Item 13 (and Item 14, if applicable), unless such use of said toxicant is agreed to by APHIS in writing.
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19. SPECIAL CONSIDERATIONS

Swans, feral ducks, feral geese will only be surveyed

20A. LANDOWNER, LESSEE, OR ADMINISTRATOR NAME AND TITLE	20B. SIGNATURE	20C. DATE
21A. APHIS REPRESENTATIVE NAME	21B. SIGNATURE	21C. DATE
21D. APHIS REPRESENTATIVE TELEPHONE NUMBER	21E. STATE OFFICE ADDRESS	
(908) 256-4417	140C Locust Grove Rd, Pittstown, NJ 08867	



USDA's Nest and Egg Work

- Wave hi at your doorbell camera
- USDA motor boat or kayak
- Staff will have a paddle and may work in a team of two
- How can you help?
 - Let me know if there is a nest on property in an “odd” location
 - Neighbor participation – Give them a Form 12A!



Questions?



Mercer, Somerset, Union and
Counties North, contact:

April Simnor

April.L.Simnor@usda.gov

908-256-4417

Burlington, Monmouth, Middlesex
and Counties South contact:

Nicole Rein

Nicole.E.Rein@usda.gov

609-548-3833