

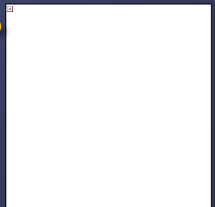
Municipal Wildlife Control Services

Presents

An Integrated approach

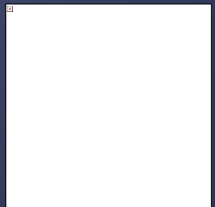
To

Canada Goose Management



History of Canada Geese

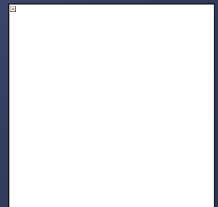
150 years ago, Canada Geese populations very strong in the environment



Canada Goose Management



By the early 1900's the Canada Goose was nearly extinct due to over hunting



Canada Goose Management



CANADA

CONSOLIDATION

CODIFICATION

Migratory Birds
Convention Act, 1994

Loi de 1994 sur la
convention concernant les
oiseaux migrateurs

S.C. 1994, c. 22

L.C. 1994, ch. 22

Current to November 25, 2014

À jour au 25 novembre 2014

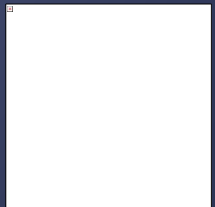
Last amended on December 10, 2010

Dernière modification le 10 décembre 2010

Published by the Minister of Justice at the following address:
<http://laws-lois.justice.gc.ca>

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<http://lois-laws.justice.gc.ca>

1917, The **Migratory Birds Convention Act** was established protecting these migratory birds, their eggs, and their nests from hunting, trafficking and commercialization. Since that time, various updates to the Act have further addressed **protection and guidelines**.

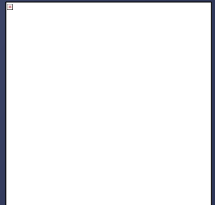


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This initiated a resurgence of their population in both urban and natural environments

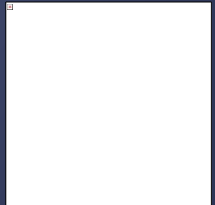
By the mid 1990's their populations exploded in urban landscapes across North America and Europe.



Canada Goose Management

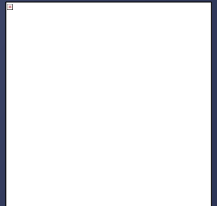
Goose Facts

- 14 Subspecies across North America
- 4 million + Geese in Canada est.
- 75% resident populations, 25% migrant
- 1 goose consumes 4lbs of turf /day
- 1 adult goose drops 2lbs / day
- nest “clutch” contains 5-6 eggs
- mate for life unless one mate dies
- annual molt 6 weeks mid June end July
- reach sexual maturity at 2 years

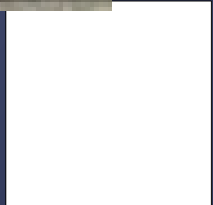


Why the concern with geese?

Adaptation to urban environments



ACCUMULATED GOOSE DROPPINGS



Canada Goose Management

AGGRESSIVE NESTING PAIRS



TURF DESTRUCTION

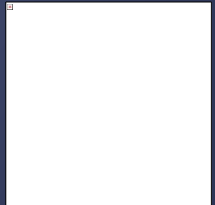
1 GOOSE = 4LBS OF TURF SEED – 2LBS OF DROPPINGS PER DAY!



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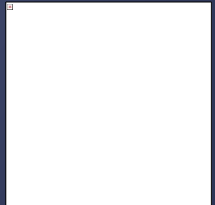
What is the VALUE of an effective Municipal Canada goose management program?

- Reduced issues associated with geese
- Healthy balance of seasonal goose activity BETWEEN geese and people
- Increased usage of parks and shoreline venues
- Reduced operational costs of dealing with geese issues in parks



ASSESSMENT

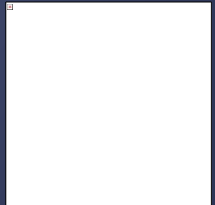
- EVALUATES BIRD PRESSURE ON-SITE
 - If **nesting** occurs in control zone
 - If any **natural predation** exists on site
 - **How many geese** on site and how many off-site
 - What types **of previous controls** work... or do not work
 - **How long** have geese been on site (years, seasonally etc)
 - What is the **ecology of lands** which support geese on or off-site



Canada Goose Management

ASSESSMENT CONTINUED...

- REVIEWS OFF-SITE ADJACENT LAND USES WHICH MAY CONTRIBUTE TO ON-SITE GOOSE ISSUES
 - SHORELINE HABITATS
 - AGRICULTURAL FIELDS
 - BIRD SANCTUARIES OR PROTECTED LANDS
 - ADJACENT COMMUNITIES WITH EXTENSIVE TURF AREAS OR WATER (GOLF COURSES, MARINAS, SOD FARMS, ETC)



Kempfenfelt Bay

off-site Canada goose assessment 2025

Legend

Barrie

Case study: Municipal Shoreline *Identify control zones*

Google Earth

3000 ft



Canada Goose Management



IDENTIFY STAGES OF
GOOSE BIOLOGY AND
BEHAVIOR in control
zones and mitigate
issues- ie. *NESTING IN*
SPRING



Kempenfelt Bay

off-site Canada goose assessment 2025

Legend

Barrie

Case study: Municipal Shoreline
- Identify control zones
- Identify goose biology and behavior in control zones

Google Earth

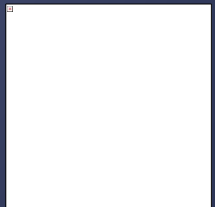
3000 ft



Canada Goose Management



Assessment identifies on-site and off-site goose presence, when properly recorded and evaluated, sets up the direction for an integrated program





So where do all the geese come from?

Kempenfelt Bay

off-site Canada goose assessment 2025

Legend

Barrie

Case study: Municipal Shoreline

- *Identify control zones*
- *Identify goose biology and behavior in control zones*
- *Identify off-site goose pressure to anticipate ON-SITE issues*

Google Earth

3000 ft



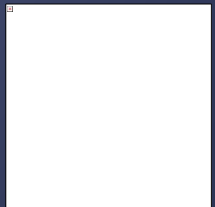
Canada Goose Management

STAKEHOLDER PARTICIPATION

- DEVELOPING A COMMITTEE OR GROUP OF STAKEHOLDERS WHO ALL SHARE ISSUES ASSOCIATED WITH GEESE IN A LARGER SCOPE OF MANAGEMENT INITIATIVES

DIRECTION FOR EFFECTIVE MANAGEMENT

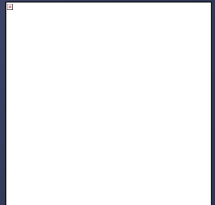
- THE ASSESSMENT OBTAINS TRENDING DATA DURING A SPECIFIC TIME PERIOD TO ANTICIPATE GOOSE PRESSURE SEASONALY IN SPECIFIC AREAS OF CONTROL OR CONCERN
- IDENTIFIES EFFECTIVE MITIGATION PRACTICES BASED ON LOCATION OF GEESE, NON-TARGET SPECIES EXPOSURE (PETS, BIRDS, PEOPLE). FOR EXAMPLE, LASER LIGHTS AS OPPOSED TO PYRO, HABITAT MODIFICATION AS OPPOSED TO RELOCATION ETC.



Canada Goose Management

DEVELOPING KEY PERFORMANCE INDICATORS

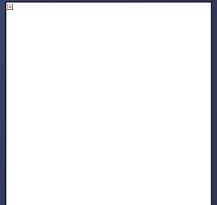
- PRE-DETERMINED THRESHOLD NUMBERS
- RESULTS AND REDUCTION OR RECORDED ISSUES
- FINANCIAL PARTICIPATION TO FUND PROGRAM (HOW MUCH IS DELEGATED..)
- INDIVIDUAL TACTICS OF CONTROL MEASURED IMMEDIATELY AND LONG TERM
- REGIONAL GOOSE NUMBERS AND TRENDS IN GOOSE BEHAVIOR AND BIOLOGY
LOCALLY AND REGIONALLY



PERMITS

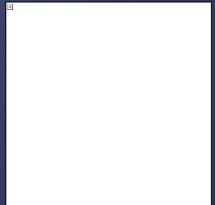
AS GEESE ARE MIGRATORY BIRDS, PROTECTED UNDER THE MIGRATORY BIRD ACT, SPECIFIC PERMITS FOR VARIOUS CONTROLS ARE REQUIRED FROM ENVIRONMENT CANADA .

ENVIRONMENT CANADA AND CLIMATE CHANGE (CANADIAN WILDLIFE SERVICE) MANAGES AND ENFORCES THE ACT, WHICH DICTATES THE PROCEDURES AND GUIDELINES FOR MIGRATORY BIRD CONTROL.



PERMITS CONTINUED...

- PERMITS ARE COMPLETED BY **LAND OWNER OR MANAGER**, OFTEN WITH ASSISTANCE FROM NOMINEE (CONTRACTOR, CONSULTANT, EMPLOYEES, ETC) AS LISTED ON PERMIT APPLICATION
- SPECIFIC PERMITTED CONTROLS ARE REQUESTED BASED ON ASSESSMENT FINDINGS
- **PERMITS EXPIRE ANNUALLY ON DECEMBER 31**, UNLESS OTHERWISE INDICATED OR BASED ON TYPE OF CONTROL
- MORE THAN **ONE TYPE OF PERMITTED CONTROL** CAN BE APPLIED FOR ON ONE PERMIT – EGG AND NEST DEPREDATION, KILL-TO- SCARE ETC.



Canada Goose Management



APPLICATION

Completed by land owner
or manager



ISSUED PERMIT

from CWS permitting
office



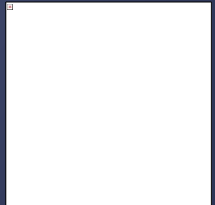
SUMMARY REPORT

Completed by permit
holder



Effective and Humane Control initiatives

- Seasonal summary and daily evaluation of goose numbers
- Environment Canada Permit Approved
- Science based –overall approach and application
- Progressive with documentation and evaluation



FIRST STEP OF GOOSE
MANAGEMENT

Common municipal permit

- **Danger or damage** (egg and nest removal, kill-to-scare)
- **Relocation-** (round up and trans-relocate)



Integrated Science based approach

(uses more than 1 method and tool)

- Starting with an **assessment** of land ecology on –site and on adjacent lands,
- **Seasonal controls** (science-based, best practices)
- **Data recording** (goose trends, application details)



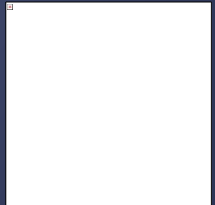
Integrated Controls

Science based Approach

- *Understanding species behavior and biological cycles in immediate flyway*

Far more structured and accountable than simply showing up and shooting pyro charges in municipal applications..

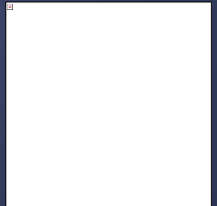
Militant approach does not represent municipality, contractors and stakeholders professionally



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Review of successful integrated
controls in municipal goose
management programs



HABITAT MODIFICATION



PERMANENT – INDIGENOUS PLANTS



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Egg and Nest depredation (April-June)



Science based LASER LIGHT APPLICATIONS



TWILIGHT APPLICATIONS

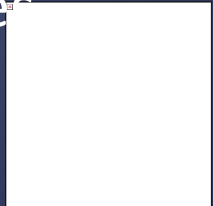
-Hand held or stationary applications depending on placement area



SIMULATED PREDATION



Geese associate forms of predation to k-9 teams, vehicles equipped with various forms of lights, lasers, distress calls which are applied at various times of day and night to reinforce presence in control zones



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Specifically Applied Pyro technics



➤ ON-SITE ASSESSMENT COMPLETED

PRIOR TO APPLICATION

➤ MILD NOISE DOES NOT INTRUDE
INTO NATURAL ENVIRONMENT AND
NON-TARGET SPECIES

➤ DILIGENT, COMMON SENSE

APPLICATION IN PUBLIC AREAS

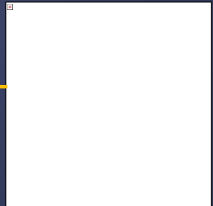
➤ SAFE DOCUMENTED APPLICATION

➤ NOTIFY LOCAL POLICE SERVICES

PRIOR TO APPLICATION WHEN IN
PUBLIC ENVIRONMENTS

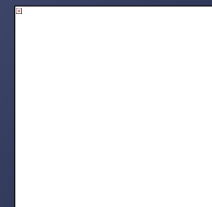
➤ VERY LIMITED APPLICATIONS

➤ COMMON SENSE ASSESSMENT



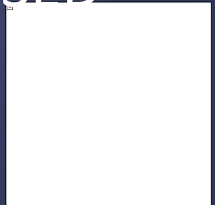
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RELOCATION APPLICATION



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- REMOVES MOLT MIGRANT AND OFF-SITE FAMILY NESTING UNITS FROM SITE
- PREVIOUS INTEGRATED CONTROL MUST HAVE BEEN IMPLEMENTED TO REDUCE GOOSE POPULATIONS IN CONTROL AREAS
- VERY DETAILED **ASSESSMENT TO BE SUBMITTED** WITH RELO APPLICATION **INCLUDING RELO-SITE APPROVAL** BY CWS
- **LAST RESORT** IN ANY GOOSE MANAGEMENT PROGRAM
- **NOT ALWAYS RENEWED** ON AN ANNUAL BASIS AS A FOCUSED FORM OF CONTROL



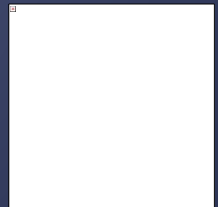
APPROVED CWS RELOCATION SITE



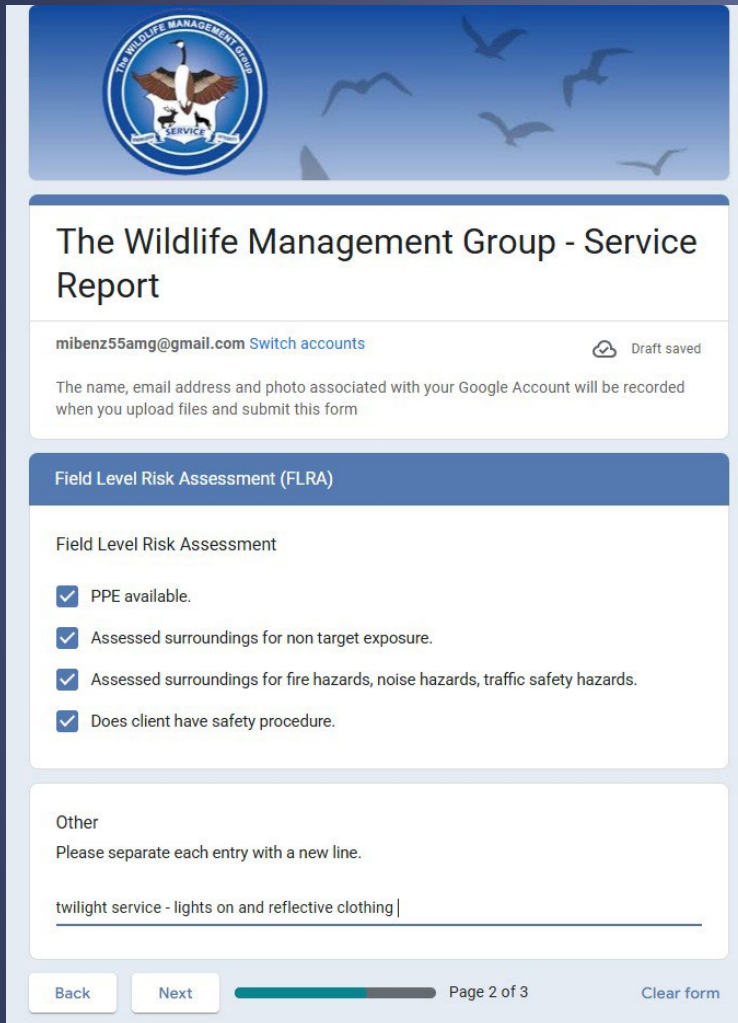
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PUBLIC AWARENESS OR INFORMATION MEETING



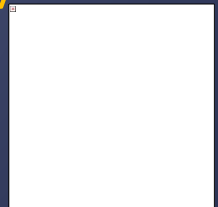
Canada Goose Management



The screenshot shows a web form for 'The Wildlife Management Group - Service Report'. At the top left is the logo for 'THE WILDLIFE MANAGEMENT GROUP SERVICE' featuring a goose. The form header includes the title and a user email 'mibenz55amg@gmail.com' with a 'Switch accounts' link and a 'Draft saved' indicator. A disclaimer states that the user's name, email, and photo will be recorded. The main section is 'Field Level Risk Assessment (FLRA)' with four checked items: 'PPE available.', 'Assessed surroundings for non target exposure.', 'Assessed surroundings for fire hazards, noise hazards, traffic safety hazards.', and 'Does client have safety procedure.'. Below this is an 'Other' section with a text area containing 'twilight service - lights on and reflective clothing |'. At the bottom are 'Back' and 'Next' buttons, a progress bar, 'Page 2 of 3', and a 'Clear form' link.

DOCUMENTATION AND REPORTING

- Completed **on-site** at time of application in e-format
- Provides details of specific information which is vital to **trending summary** reports,
- Allows for **safety awareness** and application
- Provides **accountability and integrity** of contractor or staff
- Provides information on **efficacy of control types**



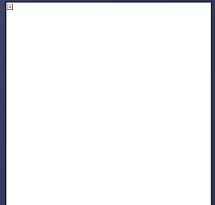
In Review

Integrated, humane program conducted under approved CWS permit

Assessment to habitat modification-Integrated controls using proven tools & techniques

Provide *healthy balance* between wildlife & people

Data recording, communication and reporting to provide accountability and continuous improvement



QUESTIONS

