

# Truro Urban Deer Management Program

TOWN OF YARMOUTH

March 24th, 2022

TRURO

make the connection

# Agenda

## INTRODUCTION

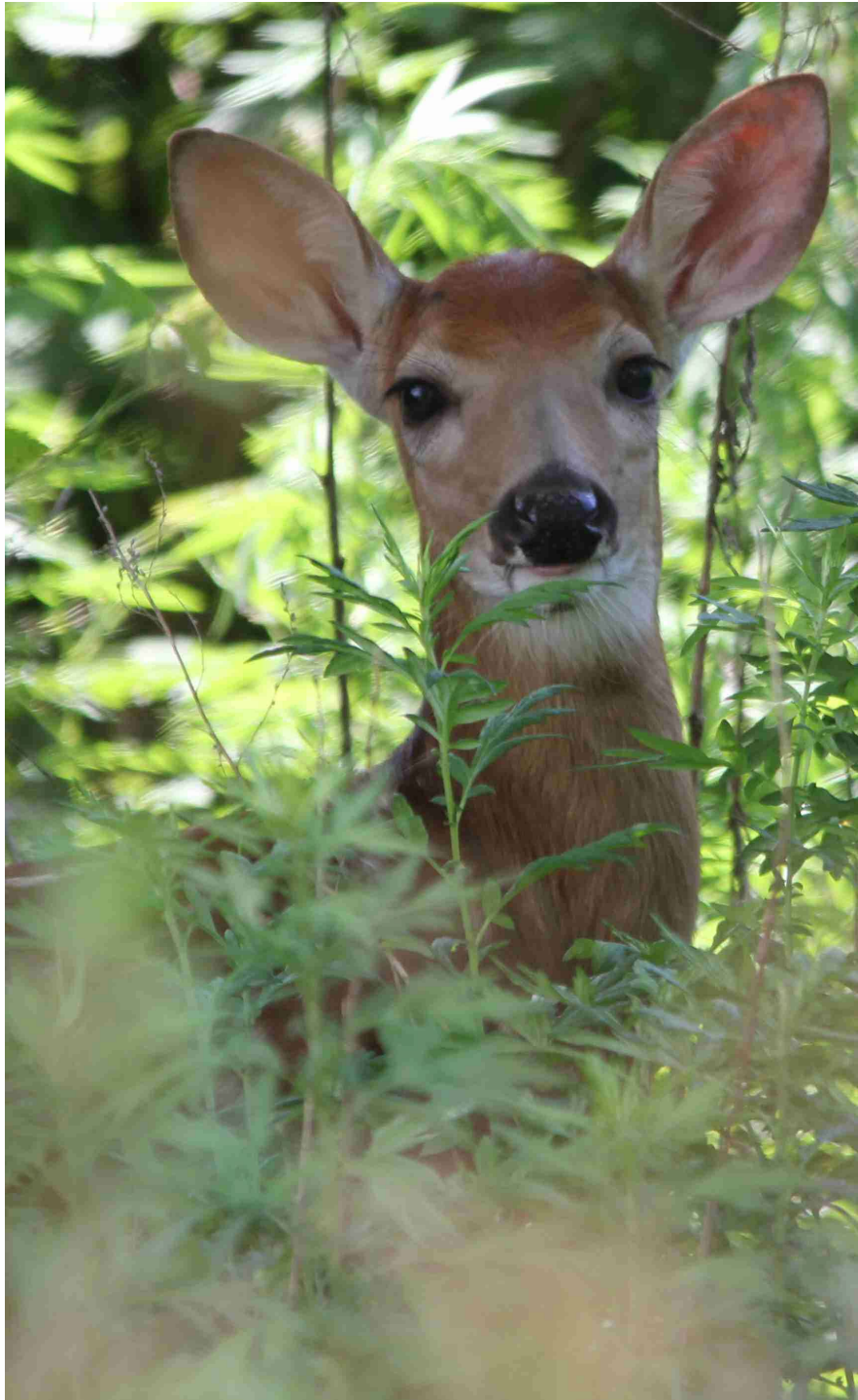
- Overview of the Problem
- 2017 Public Engagement and Survey Report
- 2020 Plebiscite Results
- Study Work Completed

## DEER MANAGEMENT STRATEGY

- Committee Formation: How We Got Here
- Review of Deer Population Management Options
- Council Approval & Recommendations

## HUNT PLANNING & IMPLEMENTATION

- Working with DNRR – Data Collection
- Hunting Consultant – What Did the Managed Hunt Look Like?
- Where Do We Go From Here?



# INTRODUCTION

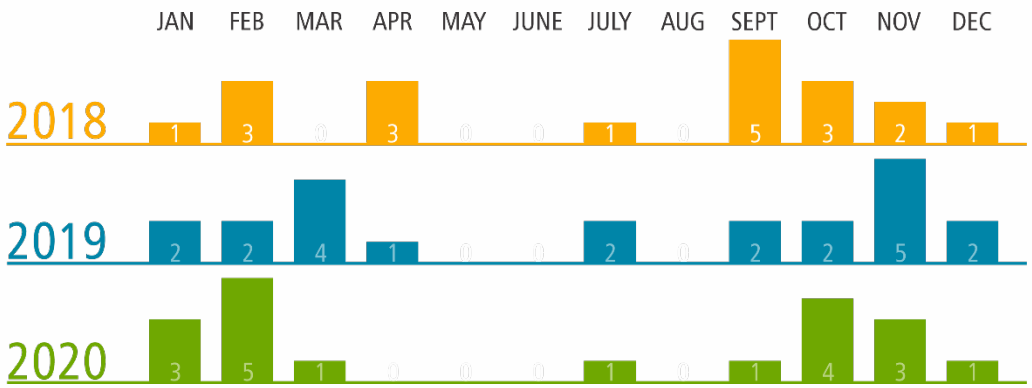
INTRODUCTION

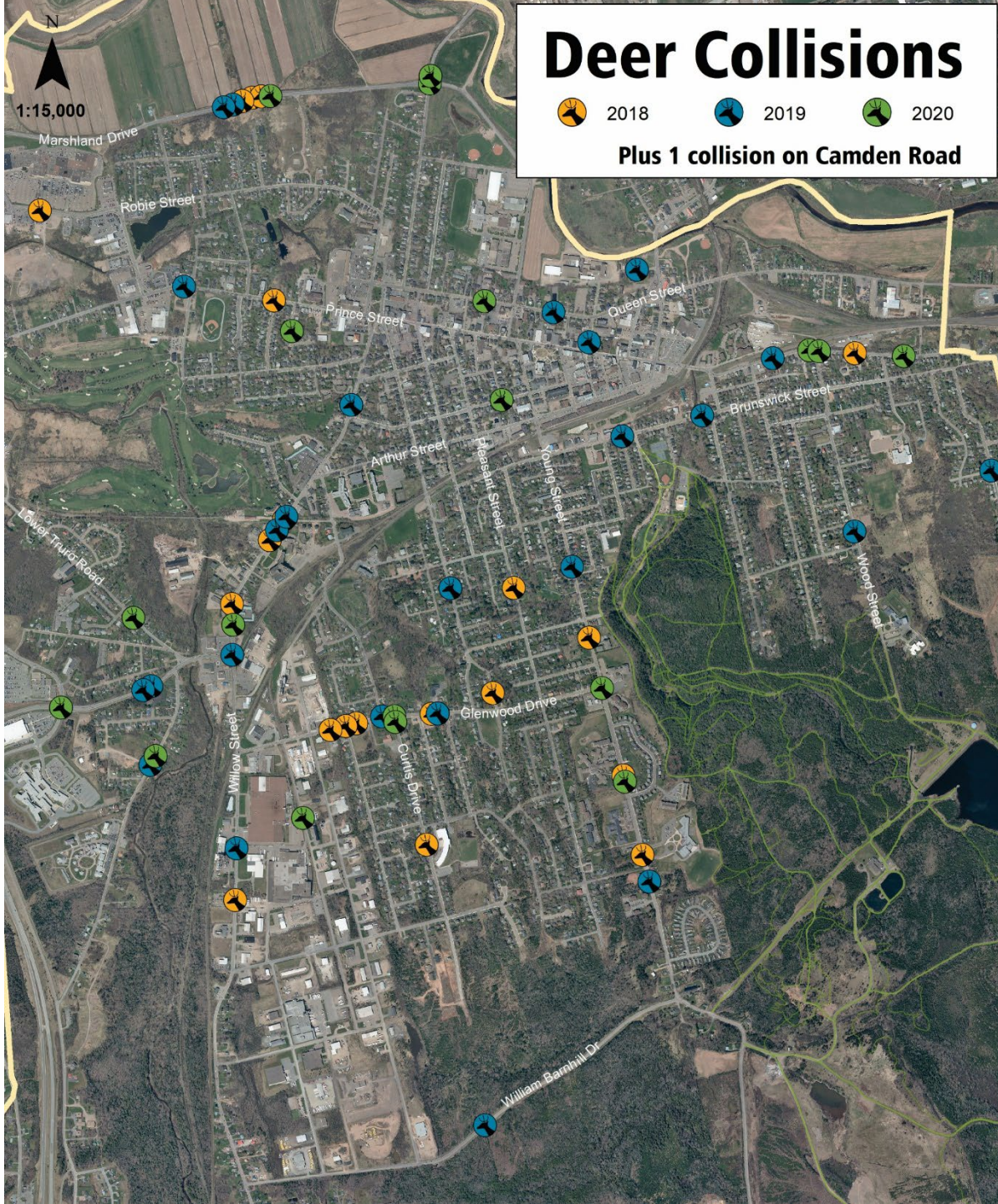
# Deer Population Management Strategy Overview of the Problem

- In June 2017, the Town of Truro hosted a deer information session at the Truro Fire Hall and conducted a deer management survey. Organizations were onsite and providing information to the public regarding urban deer management. This included:
  - NS Department of Lands and Forestry – *Living with Wildlife*
  - NS Health Authority – *Public Health and Ticks*
  - Hillendale Perennials - *Gardening for Deer*
  - Town of Truro – *Wildlife Feeding Bylaws and Public Survey*
- The survey was carried out during the month of June 2017 using two survey methods.
- An on-line survey was posted on the Town's website on Friday, June 16 and remained open until Monday, June 26.
- A paper copy of the survey was handed out at a Public Information Session held on Tuesday, June 20. Paper copies were also made available to the general public at Town Hall. Paper copies were received until Monday, June 26.
- There were a total of 1714 responses to the survey.
- 65% of respondents indicated they live or own property in the Town of Truro.

INTRODUCTION

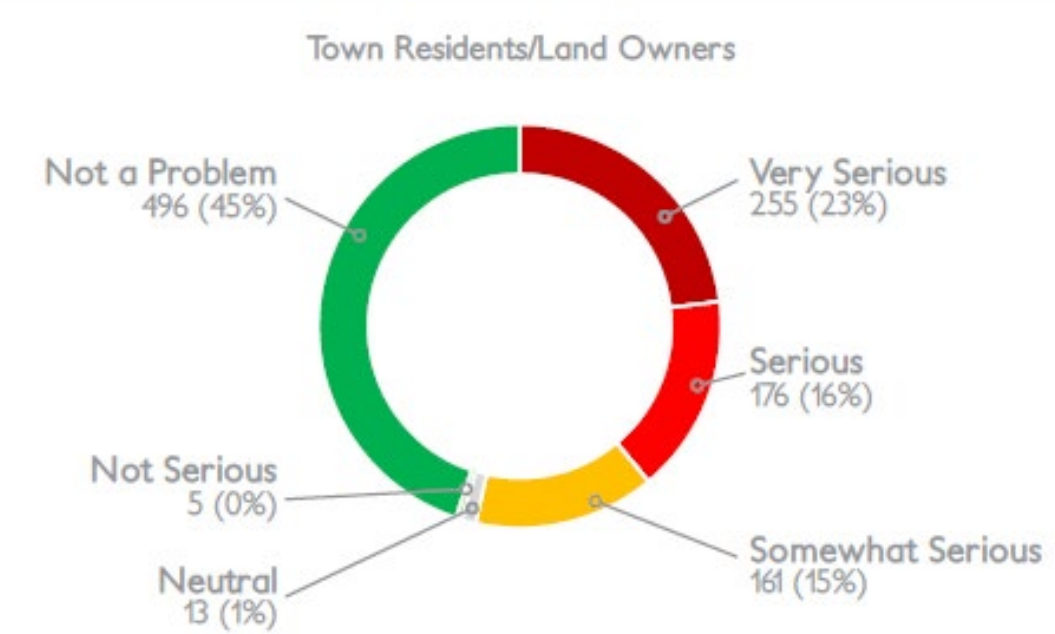
# Vehicle/Deer Collisions: Reported to Truro Police 2018-2020



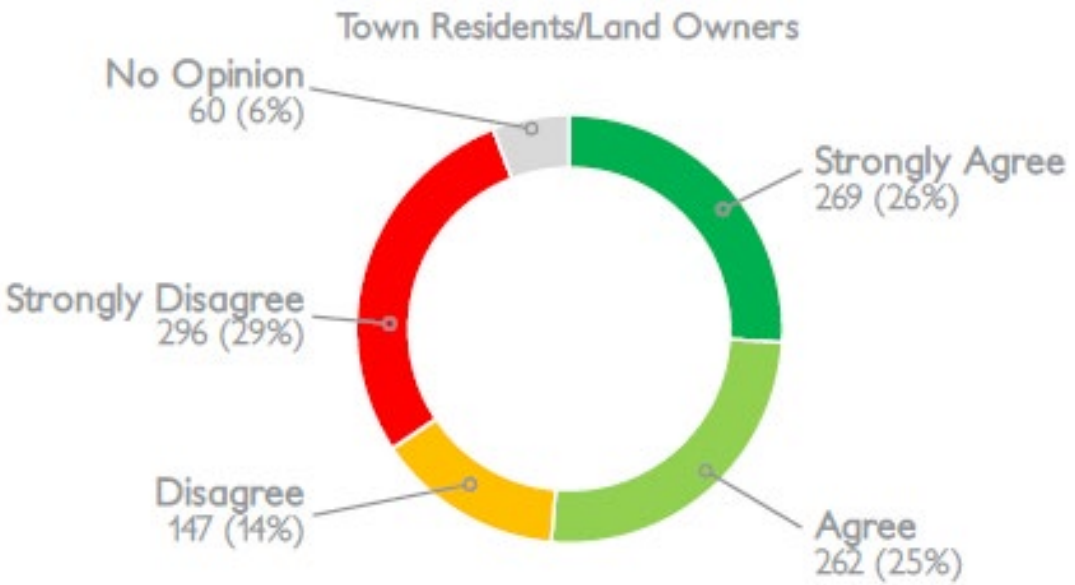
# 2017 Public Engagement & Survey Report

- Survey respondents (Town residents/landowners) voted 55% "yes" to the question: Do you feel that the deer population in Truro is a problem?
- Of that group, residents were asked to rank how serious the problem is. Results are shown here:



# 2017 Public Engagement & Survey Report Town of Truro Priority

Respondents were also asked if deer population management should be a priority for the Town of Truro when allocating budget funds and resources.



# 2017 Public Engagement & Survey Report Town of Truro Priority

## 2017 Controlled Hunt Survey Results

### Controlled Hunt



| | Town Residents | Non-Residents |
|---|---|---|
| Strongly Support | 227 (22%) | 137 (26%) |
| Support | 144 (14%) | 64 (12%) |
| Uncertain | 107 (11%) | 36 (7%) |
| Opposed | 85 (8%) | 47 (9%) |
| Strongly Opposed | 447 (44%) | 248 (47%) |

# 2020 Plebiscite Results

During the Town of Truro municipal election, held on October 17th, 2020 the Town sought input from residents through a plebiscite. Voters were asked to vote "Yes" or "No" to the question:

***"Do you support a managed urban deer bow/crossbow hunt in the Town of Truro to control and reduce the urban deer population?"***

Results:

- 2,311 voted "Yes" = 56.1%
- 1,728 voted "No" = 41.9%
- 84 did not respond to the plebiscite. = 2.0%

The total number of electors to cast a ballot was 4,123 people, resulting in a voter turnout of 39.5%.



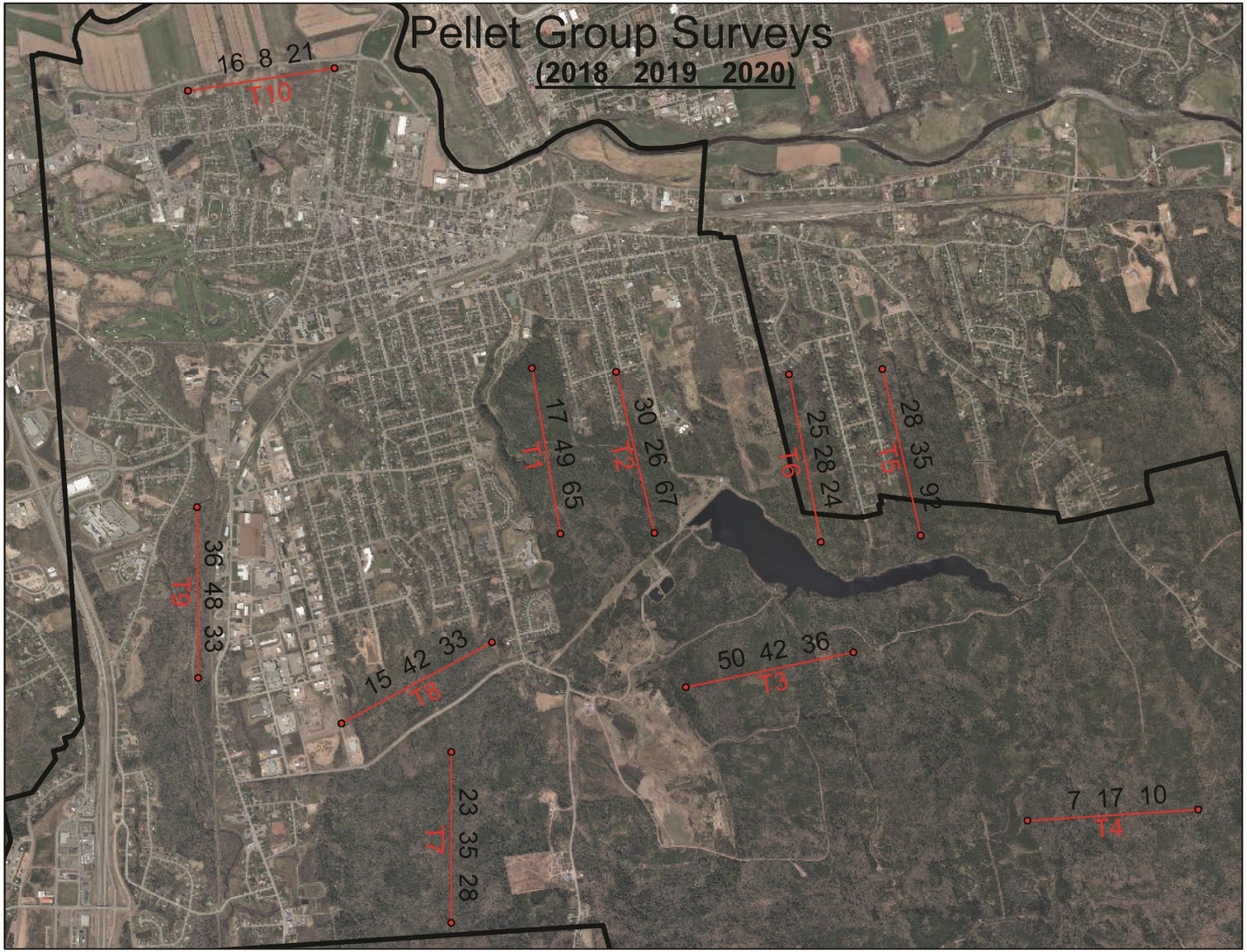
# Study Work Completed
# DNRR Data Requirements

Collect data over 5 years to help identify deer population trends. This includes Pellet Inventories and Roadside Routes/Counts. At the same time, existing hunting effort is a tool for managing deer abundance over time.

- Roadside Counts were completed in the Spring and Fall each year since the Fall of 2018.
- Pellet Inventories were completed each spring after the snow melted but before the spring green up.


Spring & Fall Roadside Surveys
Fall 2018 - Fall 2020
Showing
Lowest and Highest Average Season Counts
1 (S20)
2.4 (F18)
9
0 (F19)
0.7 (F20)
8
0.5 (F20)
2.6 (F19)
10
0 (S20)
1.4 (S19)
1
START
3
2
1.3 (F19)
3.9 (F20)
0.9 (F18)
4.5 (S20)
11
2.5 (S19)
4.3 (F20)
7
4
1.4 (F18)
6 (S19)
0 (S19)
0.4 (F18)
6
0.3 (F19)
3.4 (F20)
END
5
1 (F18)
1.6 (S20)


Spring & Fall Roadside Surveys
Fall 2018 - Fall 2020
Showing
Max Daily Counts of Each Season
12 (F18)
6 (S19)
5 (F19)
3 (F20)
12 (S20)
9
5 (F18)
6 (S19)
0 (F19)
0 (F20)
4 (S20)
10
4 (F18)
2 (S19)
0 (F19)
6 (F20)
5 (S20)
8
7 (F18)
7 (S19)
11 (F19)
4 (F20)
5 (S20)
1
START
3
2 (F18)
10 (S19)
7 (F19)
10 (F20)
5 (S20)
2
4 (F18)
7 (S19)
3 (F19)
8 (F20)
12 (S20)
11
8 (F18)
5 (S19)
11 (F19)
13 (F20)
17 (S20)
7
3 (F18)
0 (S19)
2 (F19)
1 (F20)
1 (S20)
4
6 (F18)
13 (S19)
10 (F19)
5 (F20)
8 (S20)
6
3 (F18)
4 (S19)
1 (F19)
2 (F20)
10 (S20)
END
5
3 (F18)
6 (S19)
4 (F19)
3 (F20)
7 (S20)


Pellet Group Surveys
(2018 2019 2020)
16 8 21
T10
17 49 65
T1
30 26 67
T2
25 28 24
T6
28 35 92
T5
36 48 33
T9
15 42 33
T8
50 42 36
T3
23 35 28
T7
7 17 10
T4

# DEER MANAGEMENT STRATEGY

# Committee Formation: How We Got Here

- The Town of Truro Deer Management Strategy (DMS) is an important step toward providing a clear and coordinated approach to deer control within the Town of Truro.
- DMS has been developed by the Town of Truro's Deer Management Resource Working Group (RWG), which includes members of Truro Town Council, Town Staff, Nova Scotia Department of Natural Resources and Renewables, Millbrook First Nation, Nova Scotia Federation of Anglers and Hunters, Women That Hunt, and community members.
- The DMS recognizes that deer pose a risk to natural ecosystems and biodiversity, citizen landscapes, public health and safety, and overall deer-human conflict.
- Supports decisions to determine where deer population control can be most effective in protecting the community at large.
- Town of Truro needs to be prepared to implement widespread management tools that help reduce population numbers.
- The goal of the DMS is not to eliminate the urban deer population, but rather bring the population within the social carrying capacity of Town citizens
- The DMS sets out several management options for reducing and controlling deer populations in the Town of Truro, as well as options that help to reduce deer-human conflicts.
- The Draft Deer Management Strategy was approved by Truro Town Council at the public council meeting in September, 2021

# Review of Deer Population Management Options

## Conflict Reduction

- Landscaping and Gardening
- Fencing
- Repellants
- Deer Deterrence

## Population Reduction

- Controlled and Managed Hunt
- Professional Sharpshooters
- Supplemental Feeding

## Public Education, Outreach & Enforcement

- Public Education Campaigns
- Feeding Ban

# Conflict Reduction

# Conflict Reduction

## Landscaping & Gardening Techniques

Encourage gardeners to incorporate less palatable herbaceous and woody plants that deer do not eat into their landscaping plans.



### PROS:

- Simple and cost effective approach that is a non lethal management technique.

### CONS:

- There are very few ornamental plant varieties that deer will not eat.
- Repellants need to be applied regularly and after each rain fall.
- Only effective if deer feeding pressure is low to moderate.

# Conflict Reduction

## Fencing

Installation of fencing to prevent access by deer.

## PROS:

- Fencing is a reliable method to address site-specific problems such as landscape or agricultural damage.
- Historical evidence shows that fencing was the most economical and most effective method for reducing deer-vehicle collisions along short stretches of highway.
- Barrier fencing around schoolyards and other high-risk areas to minimize deer access, tick abundance, and the associated risks of contracting Lyme disease.
- Residents may find fencing and repellents acceptable for protecting gardens or shrubs.

## CONS:

- High Installation costs for large scale applications.
- Fencing must be high to prevent deer from jumping, raising concerns about compliance with municipal by-laws and aesthetics.
- Fencing is impractical for dealing with problems over large areas.
- Fencing must be frequently inspected with breaks or erosion gullies quickly repaired, because deer will find gaps or weak points where they can cross.



# Conflict Reduction

## Repellants

Repellents work by reducing the attractiveness and palatability of treated plants to a level lower than that for other available forage.

## PROS:

- Repellents are best suited for use in orchards, nurseries, gardens, and on ornamentals or other high-value plants.
- The primary advantage of odor-based products is that deer usually realize the plants are treated when they approach within a few feet leaving the plants undamaged.
- Soap bars applied to trees may reduce deer damage, with each bar appearing to protect a radius of about a half-yard.




## CONS:

- Cost estimates for one chemical repellent treatment of orchards and nursery stock range from $10 to $400 per acre not counting equipment or labor costs.
- Chemical repellents may cause plant damage and leave noxious or offensive residues.
- High application cost, label restrictions on use, and variable effectiveness make most repellents impractical for row crops, pastures, or other low-value commodities.
- Deer often ignore repellents as food becomes scarce and competition for food increases.
- Total elimination of damage should not be expected.
- Use of some products may be very labor-intensive.
- Repellents must be reapplied frequently as repellents only protect the foliage to which they are applied. New growth that emerges after the application of the treatment is unprotected.

# Conflict Reduction

## Deer Deterrence

Property owners actively create an unwelcoming environment for deer by frightening them, chasing them off, or installing motion activated devices that scare the animals.



## PROS:

- Simple and cost effective approach that is a nonlethal management technique.

## CONS:

- Frightening or shooing deer away is only effective if implemented either before or at the initial stages of a conflict situation as deer movements or behavioral patterns are difficult to modify once they have been established.
- With increased deer density, deer may not leave the general vicinity and complaints may arise from neighbors about the noise made by the devices.
- Unlikely to provide effective long-term solutions to damage problems when there are too many deer.

# Population Reduction

# Population Reduction

## Controlled & Managed Hunt

Controlled hunting is the application of legal deer hunting methods that are closely regulated and controlled by the Provincial Department of Natural Resources. This may include the issuance of special licenses to hunters or hunting by authorized municipal staff.

## PROS:

- Estimated costs range from $125 to $250 CAD per deer harvested.
- Archery hunting for deer has the advantage of being a relatively discreet and silent activity. The limited shooting range for archery equipment makes archery hunting a safe and non-disruptive removal technique.
- A controlled hunt would likely make the deer nervous about being near human habitats and convince them to go back to the woods.
- Harvested meat can be donated to area food banks.

## CONS:

- To be effective, hunters must take does and fawns which may result in negative feedback from the community and animal welfare groups as well as potentially damaging the community's image on a broader scale.
- Archery has the disadvantage of being less efficient at reducing deer density than firearm hunting because of lower success rates for bow hunters.



# Population Reduction

## Professional Sharpshooters

Involves hunting by authorized individuals approved by the Department of Natural Resources and Town Police and possibly directly employed or contracted by the municipality.



## PROS:

- Sharpshooting is a humane form of euthanasia.
- A variety of techniques can be used in sharp shooting programs to maximize safety, humaneness, discretion, and efficiency.
- Firearms used in the hunt can be fitted with suppressors which would help minimize negative public reaction to sharpshooting.
- Archery equipment has been used to remove deer in suburban areas, where firearms discharge is not permitted.
- Public safety can be enhanced by having police or other uniformed officials responsible for shooting the deer.
- Harvested meat can be donated to area food banks.

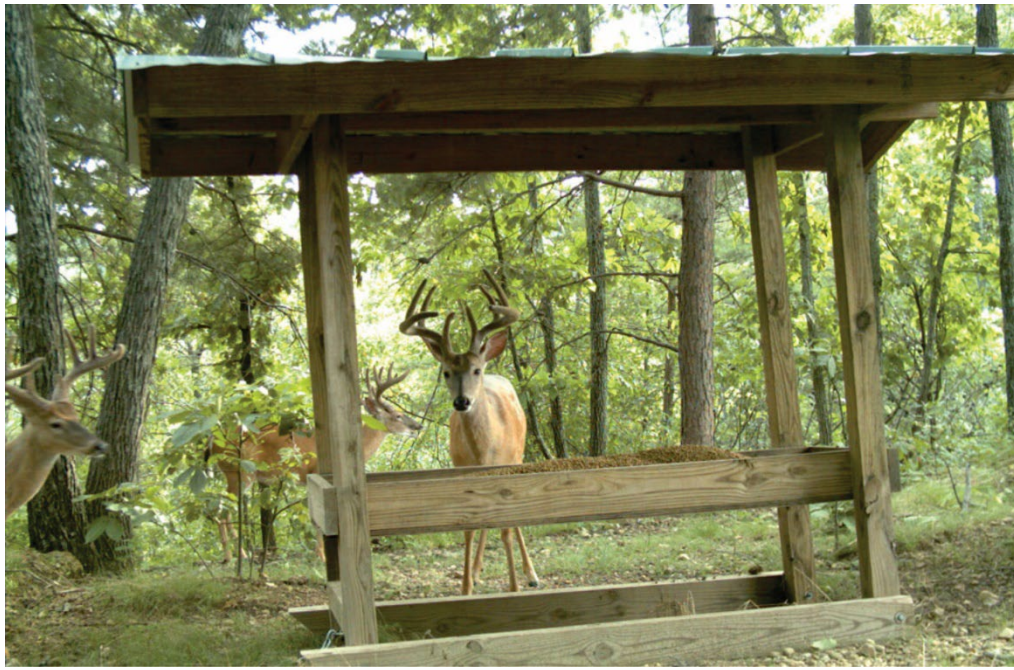
## CONS:

- Estimated costs ranging from $250 to $500 CAD per deer for sharpshooting and processing is an additional $100-$150 CAD per deer.
- The noise associated with discharging firearms after dark in suburban areas must be considered when developing a sharpshooting program.
- Human safety concerns are often associated with the discharge of firearms in urban landscapes.

# Population Reduction

## Supplemental Feeding

Providing feeding stations for deer in areas away from urban development to draw deer away from specific high density problem areas.



### PROS:

- Nonlethal management techniques are generally well accepted by the public.

### CONS:

- Implementation of a supplemental feeding program to prevent malnutrition would be counterproductive to control efforts directed at free-ranging herds because it could encourage additional population growth.
- Supplemental feeding could increase deer-human conflicts in many areas, possibly increasing disease transmission or predation of deer by dogs and coyotes.
- Expensive to provide winter feed for deer.

# Public Education, Outreach & Enforcements

# Public Education, Outreach & Enforcement

## Public Education Campaign

Public education campaigns play an important role in changing social norms and providing basic facts and education to a public audience.

### PROS:

- Overarching management option that will become increasingly effective when paired with other management options.
- Can shift public perspective and expectation of deer-human conflict.
- Quick to implement, few cots, high level of public support and no negative community impacts.

### CONS:

- Does not work as a stand-alone option.
- Can take a significant amount of time.



# Methods Reviewed But Not Adopted

# Methods Reviewed But Not Adopted

## Trap & Euthanasia

- Very inefficient
- Trained personnel
- Very Stressful for the animal

## Trap & Translocate

- Major Issues created by using these methods

## Surgical Sterilization

- Not practical
- Very expensive

## Fertility Control

- Not currently approved in Canada, Under study in BC now, works as a maintenance option

# Council Approval & Recommendations

Truro Town Council had to decide on the following in approving the DMS and the recommendation for a hunt:

## Does the Town of Truro have an urban deer problem?

- If Yes, what should be done?
- If No, continue with existing education on urban deer.

## If Yes, what is the goal of an urban deer management plan?

- What is the ideal population? (ex. # of deer/sq.km, # of collisions per year, etc).

## What is the process to meet that goal?

- Based on peer reviewed literature a Managed Urban Deer Hunt is the most feasible, effective, and cost-efficient measure for population reduction. Other methods can be used effectively for population control, but not for population reduction.
- Along with a Managed Urban Deer Hunt, controlling substitutional feeding will be critically important to reducing the urban deer population.

# Continue Educating Residents on Not Feeding the Deer

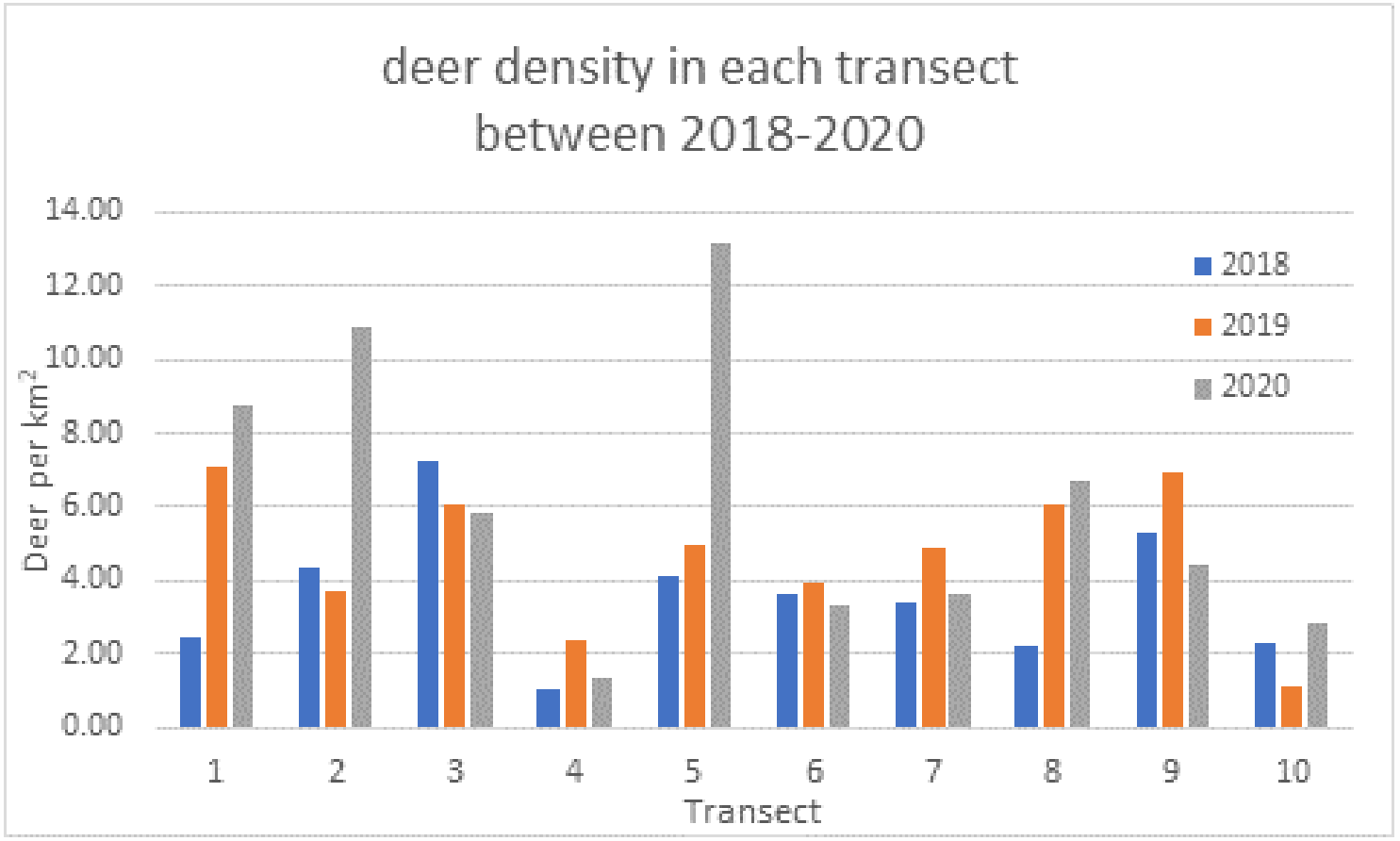
- **Do Not Feed the Deer – Brochure:** Brochures were included in a mailout to all households in the Town of Truro.
- **Do Not Feed the Deer – Signage:** Signage was place in various locations throughout Town to educate the public on the importance of not feeding the deer.
- Education on social media and the Town's website has been ongoing.
- Education on the Town's Wildlife Feeding Bylaw.
- Continue to record complaints from Town residents on the location, sex and frequency of deer sightings.



# HUNT PLANNING & IMPLEMENTATION

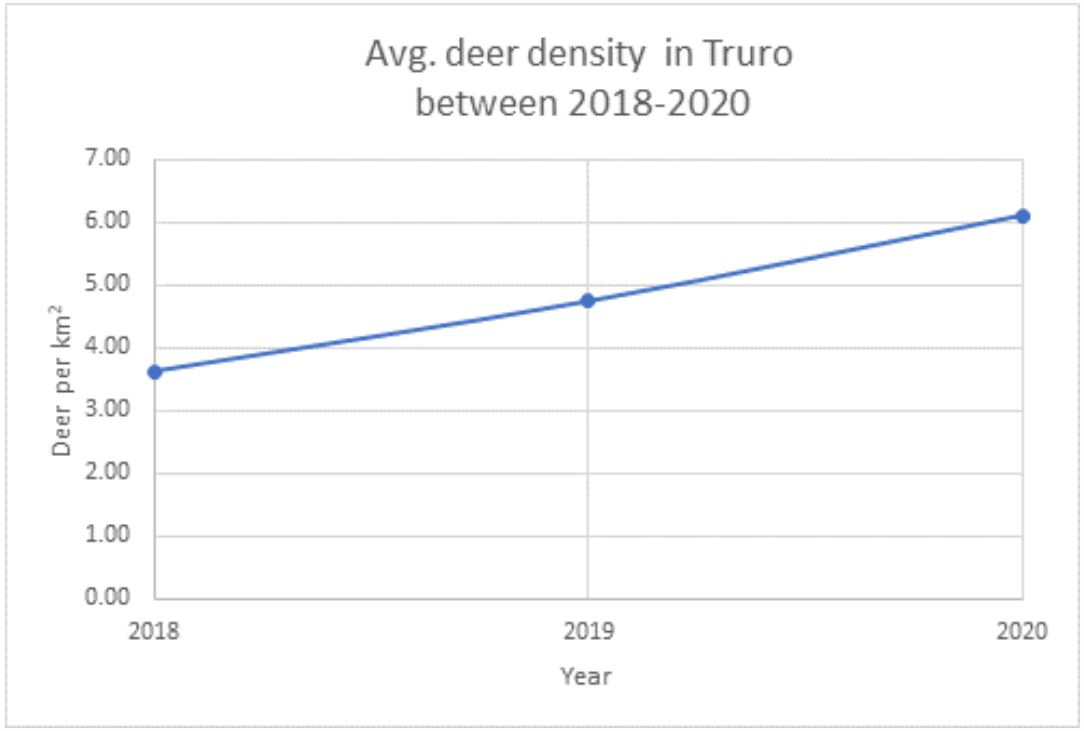
# Working with DNRR – Data Collection

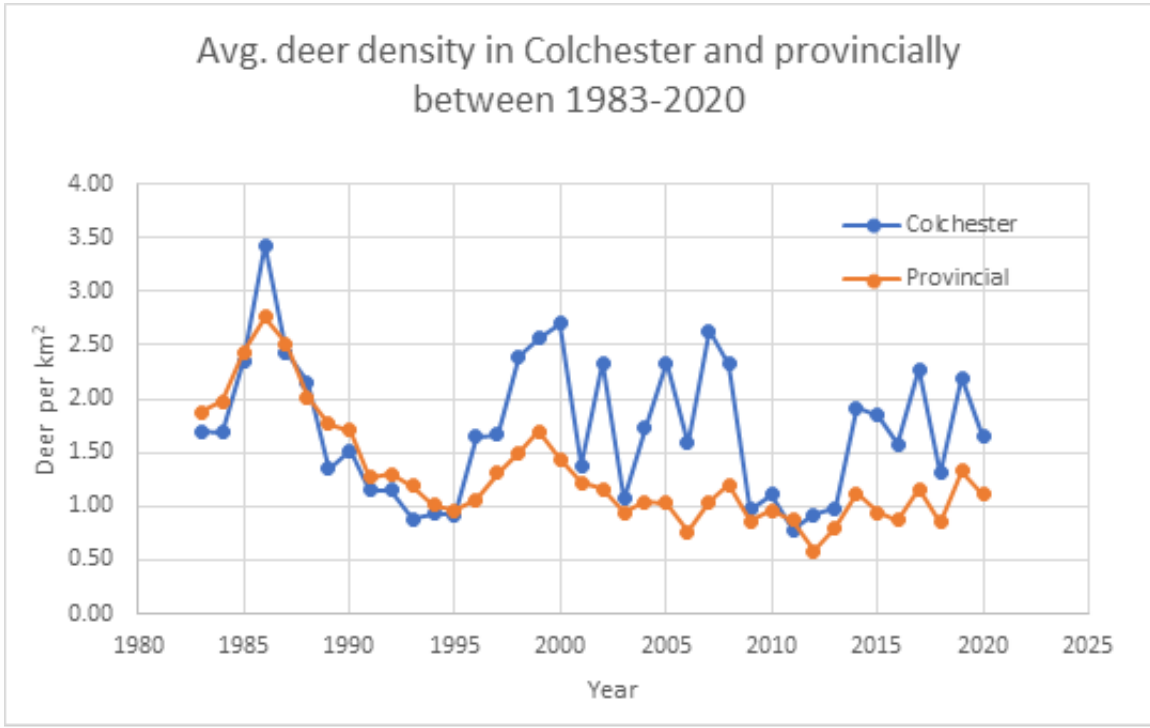
After 4 years of data collection, NS Lands & Forestry will analyze the local data and allocate hunting permits, if data suggests appropriate.



HUNT PLANNING & IMPLEMENTATION

# Working with DNRR – Data Collection



# Hunting Consultant: What Did the Managed Hunt Look Like?

- Our first Managed Urban Deer Hunt was a controlled crossbow deer hunt.  We used a small group of carefully selected, experienced, proficient crossbow hunters. These hunters operated under strict guidelines from DNRR.
- All equipment used was purchased by the Town and will be used in future hunts
- We hired a highly experience hunting consultant that designed the program in conjunction with officials from DNRR.
- Four sites were selected and individually approved by DNRR based on finding from our annual pellet counts.  These were all wooded areas where safety protocols could be met. **No** Managed Urban Deer Hunt would take place within Victoria Park, on the direction of Council
- Each individual qualified hunter was required to meet specific requirements set out by DNRR. In addition, DNRR required all hunters to participate in a 1-day special course on the guidelines and expectations of the managed hunt.
- A special permit was designed for each site and a limit of 20 animal was established.  The Minister DNRR signed off on the special permit

HUNT PLANNING & IMPLEMENTATION

# Hunting Consultant: What Did the Managed Hunt Look Like?

- Because  of severe weather one site could not be used.
- One other site came off the table because of late involvement of Millbrook First Nation.
- Actual sites that were being used were not disclosed to the public although locations were well signed when hunting was active.
- Trail cameras were put in place to confirm that sites had sufficient deer activity
- Partnerships established with Dal AC for research and meat storage and Millbrook First Nation for use of the hides
- A total of 14 deer were taken – 4 had been previously struck by vehicles
- Two butchers were arranged through Feed Nova Scotia. The 14 deer provided 189 kg of meat and that translates into 1,890 servings of protein.

HUNT PLANNING & IMPLEMENTATION

# Hunting Consultant: What Did the Managed Hunt Look Like?

- The late approval limited the number of deer that could be taken.
- We have made it clear that this program will not be a one-time program, but rather will occur annually until the urban deer population is reduced to a level where other methods are suitable for control and management.
- The Town of Truro is committed to prioritizing public safety in its deer management efforts.
- That were **NO** significant issues resulting from the hunting activity.
- **Stay off FaceBook!!**

# Where Do We Go From Here?
# Ongoing Review, Reporting & Implementation

- The Town of Truro will continue to:
  - Educate Town residents on not feeding the deer.
  - Record complaints and deer/vehicle collisions.
  - Conduct pellet group inventories each Spring.
  - Conduct roadside counts each Spring and Fall.
- Truro Town Council to has approved the annual hunt.
- It will be conducted around the regular deer hunt fall 2022 with additional sites and an increase in quota to 50 deer.
- Continued partnership with Dal AC, Feed NS, DNRR and Millbrook First Nation.

# QUESTIONS?