



Public Works and Transportation Committee

Date: Tuesday, January 19, 2021

Place: Council Chambers
Richmond City Hall

Present: Councillor Chak Au, Chair
Councillor Alexa Loo (by teleconference)
Councillor Linda McPhail (by teleconference)
Councillor Michael Wolfe (by teleconference)

Also Present: Councillor Day (entered at 4:10 p.m. by teleconference)

Call to Order: The Chair called the meeting to order at 4:00 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the Public Works and Transportation Committee held on March 17, 2020, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

February 17, 2021, (tentative date) at 4:00 p.m. in the Council Chambers

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PLANNING AND DEVELOPMENT DIVISION

1. TRANSLINK 2021 COST-SHARE FUNDING APPLICATIONS

(File Ref. No. 01-0154-04) (REDMS No. 6559547 v. 4)

It was moved and seconded

- (1) That the submission of road, pedestrian, bicycle, and transit facility improvement projects as part of the TransLink 2021 cost-share programs as described in the staff report titled "TransLink 2021 Cost-Share Funding Applications" dated December 2, 2020 from the Director, Transportation be endorsed and that the information be considered in the 2021 Capital Budget process; and*
- (2) That the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the successful funding agreements.*

The question on the motion was not called, as in reply to queries from Committee, staff noted that (i) the programs addressed in the report have the objective to maximize funding, (ii) a wide array of programs will be brought forward for Council consideration, such as walkway programs, (iii) TransLink will be providing the 2020 funding grants as promised, (iv) the requested 2021 funding is also in line to be awarded, and (v) this report addresses new projects for funding contributions.

The question on the motion was then called and it was **CARRIED**.

2. AMENDMENT TO TRAFFIC BYLAW NO. 5870 TO REVISE SPEED LIMIT ON FERGUSON ROAD

(File Ref. No. 10-6450-15-01) (REDMS No. 6546592 v. 3)

In reply to queries from Committee, staff advised that they will liaise with the other agencies regarding maintenance of Ferguson Road and the majority of the road work is complete and only minor works remain.

Councillor Day entered the meeting by teleconference (4:10 p.m.).

It was moved and seconded

That Traffic Bylaw No. 5870, Amendment Bylaw No. 10216, to revise the posted speed limit on Ferguson Road between McDonald Road and Shannon Road to 30 km/h, be introduced and given first, second and third readings.

CARRIED

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ENGINEERING AND PUBLIC WORKS DIVISION

3. MUNICIPAL ACCESS AGREEMENT WITH ROGERS COMMUNICATIONS CANADA INC.

(File Ref. No. 03-1000-21-023) (REDMS No. 6557459 v. 4)

It was moved and seconded

That the Chief Administrative Officer and the General Manager, Engineering & Public Works be authorized to negotiate and execute, on behalf of the City, a Municipal Access Agreement between the City and Rogers Communications Canada Inc. containing the material terms and conditions set out in the staff report titled, "Municipal Access Agreement with Rogers Communications Canada Inc.", dated December 10, 2020 from the Director, Engineering.

The question on the motion was not called as discussion took place on not including 5G in the agreement, and in response to queries from Committee, staff noted that (i) this agreement only covers underground installations as additional information is required for the 5G network, (ii) similar agreements are in place with other carriers with some terms that differ based on negotiations, (iii) the agreements encompass all City right-of-ways, (iv) although no complaints have been received recently, any issues or complaints that arise with regard to installation of telecommunication equipment will be addressed immediately.

The question on the motion was then called and it was **CARRIED**.

4. FLOOD PROTECTION GRANT FUNDING APPLICATIONS

(File Ref. No. 10-6060-01) (REDMS No. 6584389 v. 5)

It was moved and seconded

(1) That the Steveston Island Preliminary Dike Design submission to the National Disaster Mitigation Program (NDMP) for Mitigation Planning as outlined in the staff report titled "Flood Protection Grant Funding Applications" dated January 5, 2021 from the Director, Engineering be endorsed;

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- (2) *That the Drainage Pump Station Backup Power Upgrade submission to the Investing in Canada Infrastructure Program (ICIP) for Adaptation, Resilience & Disaster Mitigation as outlined in the staff report titled “Flood Protection Grant Funding Applications” dated January 5, 2021 from the Director, Engineering be endorsed, and that any associated project costs beyond the eligible grant funding be funded from the City’s Drainage Reserve;*
- (3) *That the Dike Operation & Maintenance Manual Update submission to the Union of BC Municipalities (UBCM) Community Emergency Preparedness Fund for Flood Planning as outlined in the staff report titled “Flood Protection Grant Funding Applications” dated January 5, 2021 from the Director, Engineering be endorsed; and*
- (4) *That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to negotiate and execute the funding agreements with the Government of Canada, the Province of BC, or UBCM for the above mentioned projects should they be approved for funding and that the Consolidated 5 Year Financial Plan (2021-2025) be amended accordingly.*

CARRIED

5. AWARD OF CONTRACT 6577P – ON CALL COLLECTION OF HAZARDOUS MATERIALS

(File Ref. No. 10-6405-12-01) (REDMS No. 6520351 v. 5)

It was moved and seconded

- (1) *That Contract 6577P – On Call Collection of Hazardous Materials be awarded at the unit rates quoted for a three-year term, commencing February 1, 2021 as follows:*
 - (a) *GFL Environmental Inc. at an estimated total contract value of \$450,000; and*
 - (b) *Tervita Corporation at an estimated total contract value of \$200,000; and*
- (2) *That staff report to Council for extensions beyond the initial three-year term, up to the maximum identified eight-year term under the provisions of Contract 6577P – On Call Collection of Hazardous Materials.*

CARRIED

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6. GLOBAL CONTAINER TERMINALS DELTAPORT EXPANSION – BERTH FOUR PROJECT

(File Ref. No. 10-6125-30-011) (REDMS No. 6548529 v. 4)

In reply to queries from Committee, staff noted that the map outlines major infrastructure projects in the lower mainland that would have environmental impacts in Richmond and Environmental Assessments should be coordinated by the Province to minimize confusion for stakeholders.

It was requested that copies of the staff report be provided to local MLAs and local MPs.

It was moved and seconded

That the comments outlined in the staff report titled "Global Container Terminals Deltaport Expansion – Berth Four Project ", dated December 10, 2020, from the Director, Sustainability and District Energy, be endorsed and submitted to the BC Environmental Assessment Office, the Impact Assessment Agency of Canada, local MLA's and local MPs in response to the provincial and federal environmental assessments.

CARRIED

7. BANNING RODENTICIDES ON CITY-OWNED PROPERTY IN RICHMOND

(File Ref. No. 10-6160-06; 10-6125-01) (REDMS No. 6544080 v. 8; 6545190)

It was moved and seconded

- (1) That the City discontinue the use of rodenticides on city-owned property for one year, as described in the staff report titled "Banning Rodenticides on City-owned property in Richmond," dated December 10, 2020 from the Director, Sustainability and District Energy;*
- (2) That staff assess the outcomes of the one-year ban on city-owned property and report the findings to Council;*
- (3) That staff be directed to develop an integrated rodent management program, as described in the staff report titled "Banning Rodenticides on City-owned property in Richmond," dated December 10, 2020 from the Director, Sustainability and District Energy;*
- (4) That staff be directed to write a letter to the provincial Ministry of Environment, requesting that a review of the province's existing policies that allow for the retail sale of rodenticides be conducted; and*
- (5) That the 2021 rodent management transition program be endorsed with funding in the amount of \$67,000, from the Sanitation and Recycling Provision, and be included in the Consolidated 5 Year Financial Plan (2021-2025).*

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The question on the motion was not called as staff responded to queries regarding rodenticides, noting that (i) there is limited research on snap traps posing a significant risk to other animals, (ii) preferred best practice for snap traps would be containing rodents, (iii) this report addresses the banning or use of rodenticide on City-owned property, (iv) a pest management process that is consistent with the City's current practices is being examined, (v) the delay in reporting back is due to the limited information that was available regarding rodents in Richmond, the extensive examination process to understand the problem, and reviewing potential solutions, (vi) discussions with other municipalities and subject matter experts have taken place, (vii) rodenticides do have a place for management of large infestations in specific targeted areas, and (viii) more details on non city-owned land processes will be provided in an upcoming report.

Deanna Pfeifer, referenced a PowerPoint presentation (attached to and forming part of these Minutes as Schedule 1) and provided information on:

- rat poisons and the effects on the entire ecosystem;
- better alternatives that exist;
- negative effects of rat poison on other animals;
- incorrect disposal of rat poison and dead animals; and
- lack of education and communication.

Adrian Nelson, Humane Solutions, spoke in favour of the staff report and noted that (i) there is no follow-up once the boxes have been installed, (ii) no accountability or statistics for what happens to the animals with poison, (iii) specific sites need to be examined and addressed based on situation, and (iv) ineffective rodent management plans can be costly.

The question on the motion was then called and it was **CARRIED**.

8. **MANAGER'S REPORT**

(i) Water Level Rise

Staff advised that there were higher than normal river levels on January 13, 2021 as a result of King Tides, storm surges and heavy winds. It was noted that the City's flood management protection system performed well as result of ongoing maintenance and work to the dike system. Staff then noted that water levels have decreased and expect it to continue over the next few days and a staff report will be provided to summarize the storm season.

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(ii) Recycling Depot

Staff highlighted that (i) the Recycling Depot is now open 7 days a week from 9:00 a.m. to 6:15 p.m., (ii) additional materials such as lead acid batteries and fire extinguishers are now accepted at the Depot, (iii) feedback regarding the new arrangements and structure of the Depot from the public has been positive, and (iv) a virtual tour of the Recycling Depot will be provided on the City's Recycling App.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (5:05 p.m.).

CARRIED

Certified a true and correct copy of the
Minutes of the meeting of the Public
Works and Transportation Committee of
the Council of the City of Richmond held
on Tuesday, January 19, 2021.

Councillor Chak Au
Chair

Sarah Goddard
Legislative Services Associate

Schedule 1 to the Minutes of the
Public Works and Transportation
Committee meeting of Richmond
City Council held on Tuesday,
January 19, 2021.

Deanna Pfeifer

Are you aware?



Key take away points

- Rat poisons are poisoning the entire ecosystem
- Not effective long term
- Better alternatives exists

NECROPSY #1

Barred Owl

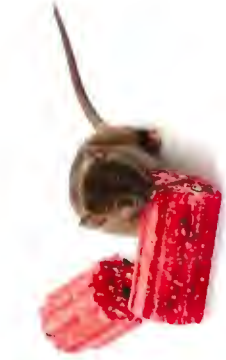
- Well-muscled
- No sign of trauma
- Excellent body condition
- Diffuse pallor
- Presence of brodifacoum and bromadiolone in the liver
- Final Diagnosis-suspect anticoagulant rodenticide toxicity

NECROPSY #2

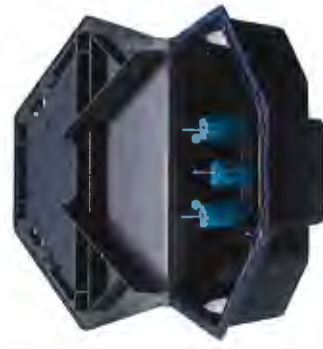
Great Horned Owl

- bromadiolone
- brodifacoum
- difetialone

What are Rodenticides?



- BROMADIALONE
- DIFENACOU
- BRODIFACOU
- DIFETIALONE



who is using rat poison?

- Pest Control Companies
- Homeowners
- Farmers



Rodent Bait Stations



Laws and policy

Federal

- Pest Control Products Act and Regulations
- Registration and re-evaluation
- Human health and safety
- Environment impact
- Value assessment
- Compliance and enforcement

Provincial/Territorial

- Transportation, sale, use, storage and disposal
- Training, certification and licensing of applicators and vendors
- Spills and accidents
- Permits and use restrictions
- Compliance and enforcement

Municipal

- Bylaws

So how did the poison get in the owl?

Between 1998-2003 70% of dead owls from BC had residues of at least one rodenticide-and the number of owls dying by poisons has only escalated over the recent years.



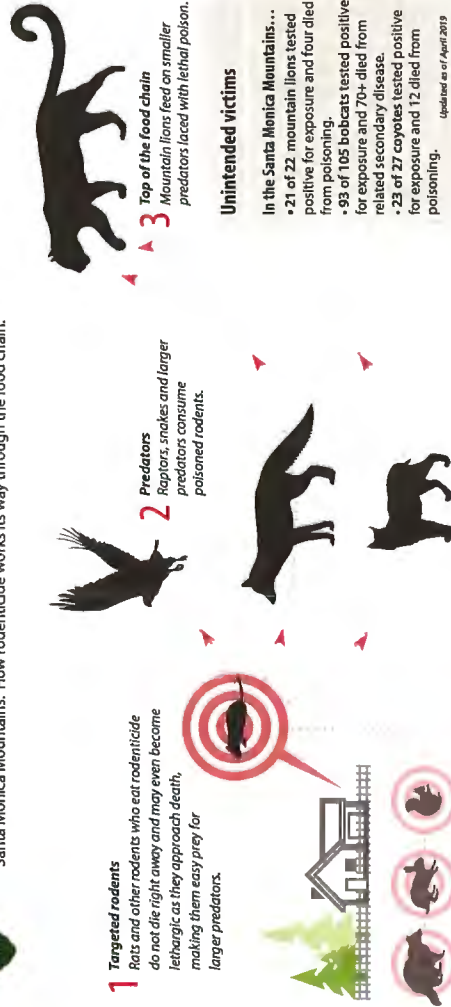
- Owls and other birds of prey are at a particularly high risk of secondary poisoning because of their dependence on rodents as a food source.





Lethal Dose: Rat Poison & Local Wildlife

Local residents may inadvertently be poisoning wildlife. National Park Service researchers have found a direct link between exposure to anticoagulant rodenticides, commonly known as rat poison, and the deaths of wildlife in and around the Santa Monica Mountains. How rodenticide works its way through the food chain:



How anticoagulant rodenticide kills

These compounds interrupt blood-clotting, which leads to uncontrolled bleeding and death. They may also suppress the animal's immune system, making it susceptible to other diseases. **Symptoms include:**

- Nosebleeds
- Bleeding gums
- Ruptured blood vessels, causing bruising
- Internal hemorrhaging



Check the label

Here are the most common anticoagulant compounds:

- Bromadiolone
- Brodifacoum
- Diphacinone
- Difethialone

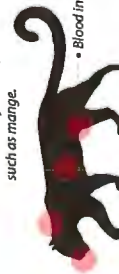


What is mange?

A microscopic mite that burrows into the skin and causes...

1. Extreme itchiness and skin lesions.
2. Fluid and nutrient loss through the skin.
3. Infection, starvation, hypothermia or other complications, eventually leading to death.

Secondary disease, such as mange.



- Blood in urine and feces

SOURCES: Santa Monica Mountains National Recreation Area research, L.E.K. Serveys, UrbanCarnivores.com

CREDIT: National Park Service
<http://1.usa.gov/1SuhsXv>

What is mange
disease?

<https://www.latimes.com/local/la-me-rat-poison-20140418-story.html>





Article

Impact of Rodenticides on the Coagulation Properties of Milk

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Received: 13 March 2018; Accepted: 4 April 2018; Published: 7 April 2018



Abstract: In this study, we investigated the impact of the rodenticides (strychnine, bromadiolone, and brodifacoum) on milk pH, rennet coagulation time (RCT), and coagulum strength. Sub-lethal amounts of strychnine and bromadiolone produced an unusually large change in milk pH, compared to brodifacoum and brodifacoum on milk coagulation properties. All three studied rodenticides significantly affected RCT and coagulum strength. The presence of sub-lethal amounts of each individual rodenticide increased RCT by an overall mean of 17% ($p < 0.001$). Rodenticide contamination decreased coagulum strength by an overall mean of 26% ($p < 0.05$). Our results suggest that such changes could be noticeable at the farm, thus, potentially averting the mixture of contaminated milk with the tanker supply, and preventing downstream distribution to consumers.

Keywords: rat poison; milk contamination; milk coagulation; rennet coagulation time; rodenticides

1. Introduction

Dairy products are a significant part of typical U.S. diets [1]. In particular, milk's broad reach, in addition to its multi-stage processing chain, makes it especially vulnerable to intentional contamination. The processing of cheese begins with the coagulation of milk [2]. The coagulated milk is then further processed into the desired cheese product.

The coagulation of milk is a multi-stage process of overlapping physico-chemical changes. Cheese-making often begins with the aspartyl protease chymosin (also called rennet). Chymosin hydrolyzes the amide bond between Phe105 and Met106 of the κ -casein milk protein [3]. The catalyzed hydrolysis reaction releases the hydrophilic tail of κ -casein and the hydrophobic effect then drives aggregation of the casein micelles [2].

Milk coagulation depends on several parameters, including pH and temperature. The normal pH range of milk is between 6.4 and 6.8 [4]. A decrease in pH accelerates milk coagulation. At low pH, protonation of casein phosphate groups becomes more favorable, reducing zeta potential and, thus, accelerating coagulation [5]. However, a robust buffer prevents drastic pH changes in milk [6].

Overall, enzymatic coagulation is a physically apparent transformation driven by an underlying chemical one. The simultaneous cascade of events yields multiple points at which contaminant may play a role, whether in the pH, enzymatic hydrolysis, or hydrophobic assembly. In addition, more than a dozen antibiotic residues were found to significantly impact the milk coagulation process [7]. Thus, in this study, we hypothesized that rodenticides could contaminate the milk on farms and can affect the milk coagulation. During the coagulation process, several parameters are monitored for quality control purposes, including milk pH, gel strength, and rennet coagulation time (RCT) [8]. Of course, these parameters vary from day to day due to natural variations in milk quality and among individual cows [9]. However, changes that far exceed those expected due to normal variation may serve as

Foods 2018, 7, 57; doi:10.3390/foods7040057

www.mdpi.com/journal/foods

Threatens children and pets



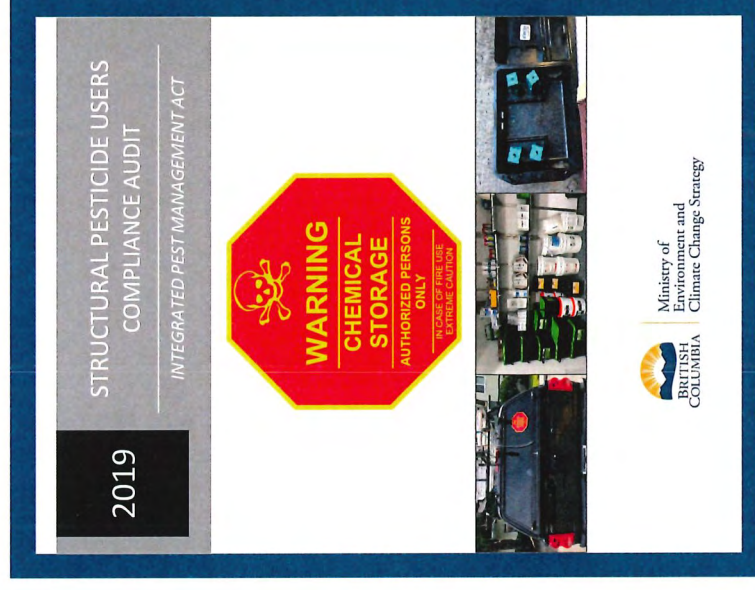
<http://www.panna.org/blog/company-thwarts-rat-poison-rules-%E2%80%94-again>



<https://www.startribune.com/3-tips-for-getting-cats-and-dogs-and-other-pets-to-play-nice/4/>

**Approx. 10,000 reports
of rodenticide exposures
in children annually in
U.S.**

Non compliance



-83% of inspected PCO's were NOT in compliance

-64% of the inspected users did not comply with the requirements to practice integrated pest management

-81% were non-compliant for pesticide record keeping



Abandoned Boxes

Not being used as a last resort



Bait boxes end up
being **PERMANENT**
by **NOT** dealing with
the problem

Boxes are not
tamper resistant



RAT POISON DISCARDED IN HOUSEHOLD GARBAGE



[This Photo](#) by Unknown Author is licensed under [CC BY](#)

Data Collection is Problematic

- Few raptors are found
- Of the ones found people don't know they should report it
- Most dead animals are buried or tossed in the garbage
- Submitted to museums and taxidermists-going untested
- Difficulty finding out who to report it to
- Due to lack of communication are told to bury it or place in garbage
- Not all raptors necropsied are screened for rodenticides-even if suspected and evidence of internal bleeding
- Canada not testing other animals, therefore, I had to use statistics from other Countries
- Barriers to lab testing

VENDORS ARE **REPEATEDLY** NON COMPLIANT

2018

IPM COMPLIANCE INSPECTION REPORT
INTEGRATED PEST MANAGEMENT ACT



Pest control companies not informing people of the dangers



“Leave it up to the highly qualified technicians “ Al Beddows-Sooke Councilor

Education?

Basically a free online course to become a certified pest control operator

- 3 online modules and an exam

Ineffective long term

- Rats have a gene that enables them to develop resistance to poison
- Clearing a resident population simply makes space for new groups to move in
- Poisoned rats mate faster to compensate for thinning numbers
- By distracting from the root of the problem, for example accessible food and shelter, relying on rodenticides permits infestations to rebound
- Making the rodent problem worse by killing rodent predators

One owl eats **1000** rodents per year



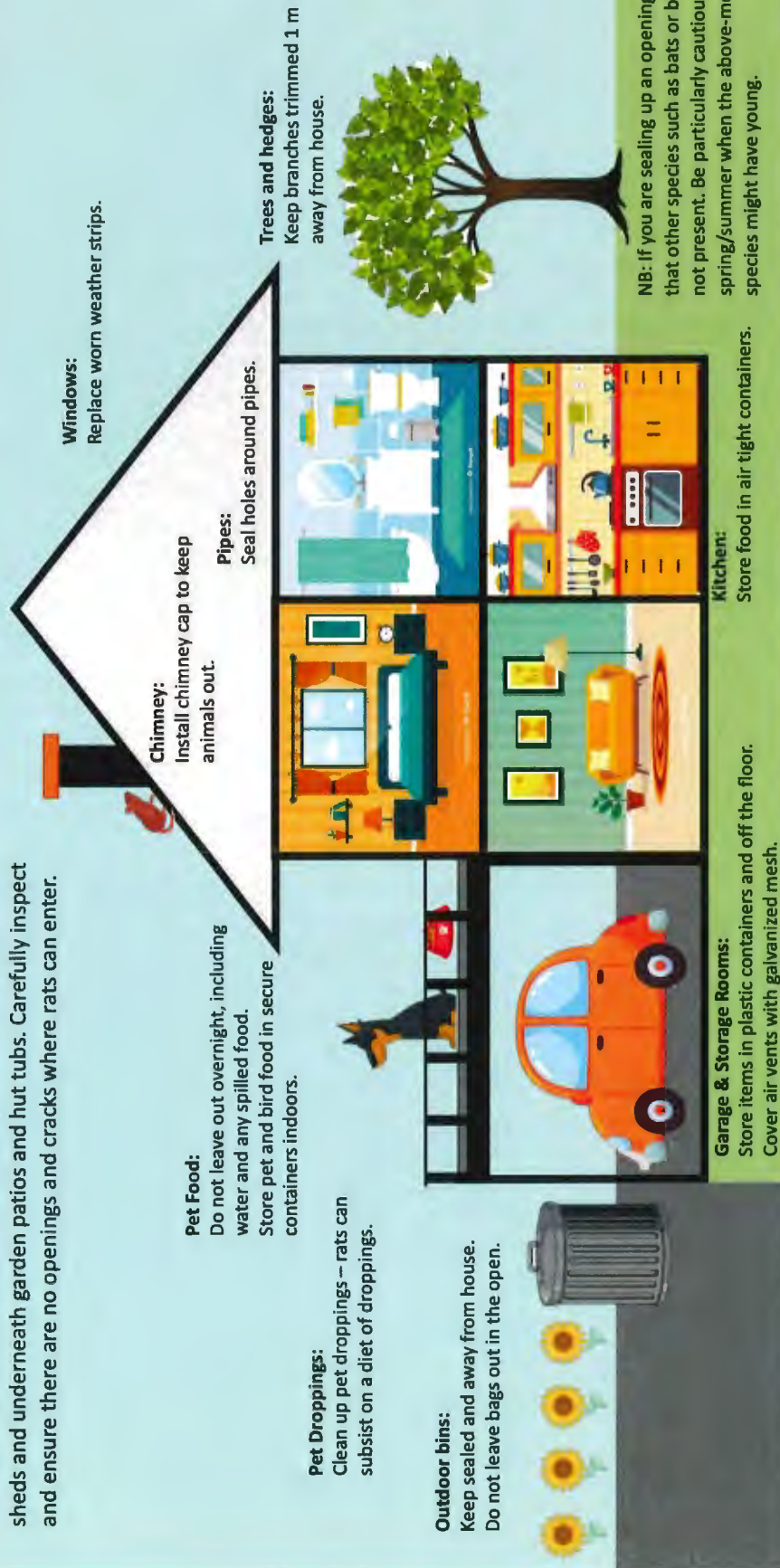
Grasses

Rodents

Owls

Rat Management: Simple Preventative Measures

Prevent access to all favourable rat nesting areas such as buildings, sheds and underneath garden patios and hut tubs. Carefully inspect and ensure there are no openings and cracks where rats can enter.



Rat Management: Simple Preventative Measures



Birdfeeders:

Do not feed on the ground; restrict your feeding to rodent-proof hanging feeders.

Rats are nocturnal so take bird feeders in at night and rake up fallen seed from the ground.

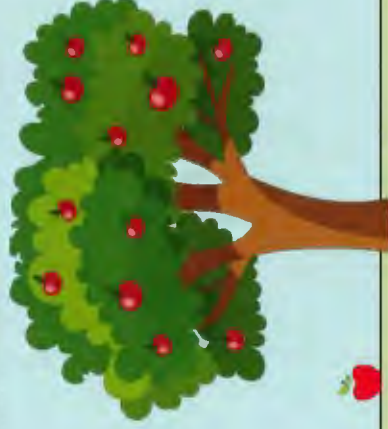
Buy quality over quantity:

Offer food that leaves minimal waste: i.e. peanut granules, sunflower hearts.

Use a seed catcher to keep spilled seed from reaching the ground.

Fruit Trees:

Pick up fruit that falls to the ground and don't let garden produce rot on the vine.



Prevent access to fruit and compost:
Don't put food in open compost piles; instead use a rat-proof composter or a covered worm box.

Compost bins:

Place bins on concrete/stone surfaces or place 1/2" metal wire mesh under all compost and storage bins to block rodents.



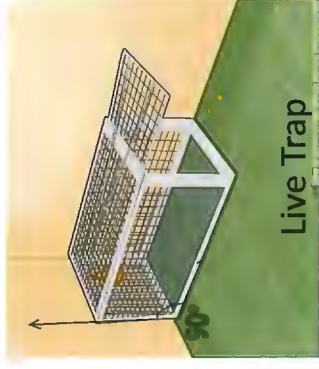
If burying food scraps, cover them with at least 8 inches of soil and don't leave any garbage above ground in the area—including a smelly shovel.

Prevent access to food and water: Store food and garbage in sealed heavy-duty containers.

Safe and effective rodent control



Peppermint oil is a natural repellant for rodents



Put snap trap in box to avoid accidental injury to pets and other wildlife



Install Owl Nesting Boxes



RODENT SOLUTIONS

Humane Solutions is Western Canada's leader in humane wildlife and pest control. We provide permanent, poison-free alternatives for our clients in an environmentally degradative industry.

WHY WE DON'T USE POISON:

- ① Ineffective & inhumane
- ① No opportunity for data collection
- ① Never achieves permanent result
- ① Toxin bioaccumulation in wildlife
- ① Risk to people & pets
- ① Secondary poisoning of predators & birds of prey



PERMANENTLY RAT FREE:



Onsite Assessment & Quote

A specialist will conduct a full inspection of your property, determining the required program to effectively manage rodent populations, as well as any required resource mitigation. Quotes are free.

Resource Mitigation

Our techs inspect every square inch of your structure and pest-proof active and potential accesses to stop the flow of rodents into your structure. We offer industry-leading warranties on all structural work. Available food and attractants are also identified and mitigated.



Targeted Implementation

We install our innovative trapping stations and remove any poison if it is present. We focus the traps on targeted locations and create data tables with trap IDs, catch metrics & sites of hot spot activity. As all our traps are within secure, no-sight stations & we use our own proprietary bait, there is no risk to children or pets.



- No poison
- Ability to collect data
- Effective & humane
- Pest proof active and potential accesses
- Industry leading warranties on all structural work
- Quotes are free
- Innovative trapping stations
- No risk to children or pets

Good Nature traps




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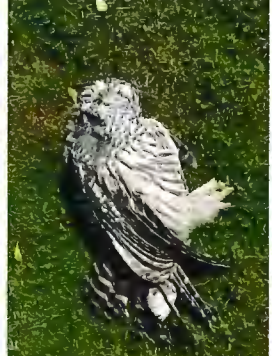
<https://www.pinterest.ca/pin/129689664257808581/>

What can municipal governments do?

Join a growing list of municipalities that have committed to a ban of rodenticides



VICTORIA NEWS



A DEAD RACCOON, KILLED BY RAT POISON, LIES ON ITS BACK IN A LAWN IN VICTORIA, B.C. ON MON. JUL. 26, 2010. THE DEAD RACCOON WAS FOUND BY A RESIDENT IN THE NEIGHBORHOOD OF WEST HAVEN IN 2010. THE RACCOON WAS FOUND DEAD ON A LAWN IN THE NEIGHBORHOOD OF WEST HAVEN IN 2010. THE RACCOON WAS FOUND DEAD ON A LAWN IN THE NEIGHBORHOOD OF WEST HAVEN IN 2010.

Oak Bay join Saanich in municipal ban of rat poison

Ben on commercial rat poisons implemented due to owl deaths

[illegible]

District of North Vancouver
District of Saanich
District of North Saanich
City of Colwood

New Westminster is the latest municipality to back a ban on anticoagulant rodenticides because of their negative impacts on wildlife. Council approved a motion by Coun.

Sep 20, 2020 11:35 AM By: Theresa Mcmanus

[f](#) [in](#) [v](#) [d](#)

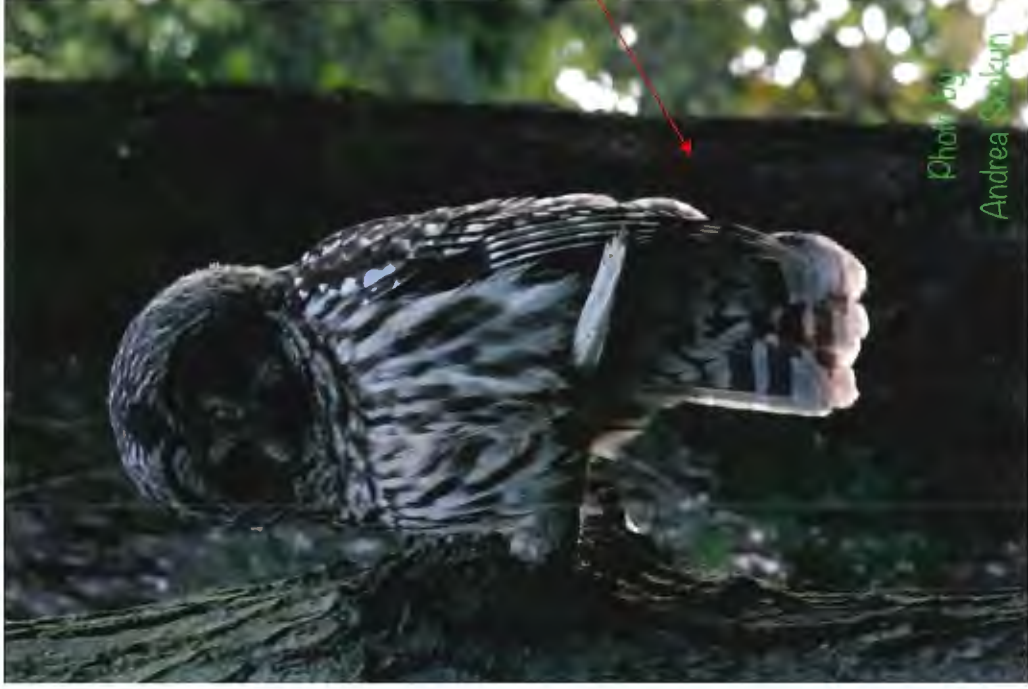


City of Port Moody
District of Sooke
City of North Vancouver
City of West Vancouver

Sooke jumps on board to ban use of rat poison
City staff will educate residents on harmful effects of rodenticides

Fun Fact:

Barred Owls
have hearts on
their feathers



Thank you!