

AGENDA

COUNCIL WORKSHOP

Monday, June 25, 2012

7:00 p.m.

Committee Room, Municipal Hall

355 West Queens Road,

North Vancouver, BC

Council Members:

Mayor Richard Walton

Councillor Roger Bassam

Councillor Robin Hicks

Councillor Mike Little

Councillor Doug MacKay-Dunn

Councillor Lisa Muri

Councillor Alan Nixon



NORTH VANCOUVER
DISTRICT

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COUNCIL WORKSHOP

7:00 p.m.
Monday, June 25, 2012
Committee Room, Municipal Hall
355 West Queens Road, North Vancouver

AGENDA

1. **Opening by the Mayor**
2. **Bicycle Master Plan Update** p. 5 - 7
File No.

Memo: Erica Geddes, Section Manager - Transportation
3. **East Keith Road – Evaluation of Bus Bays** p. 9 - 12
File No. 16.8450.30/027.000

Memo: Erica Geddes, Section Manager - Transportation
4. **Domestic Chickens – A Discussion and Exploration of Next Steps** p. 13 - 54
File No. 13.6640.20/003.000

Report: Cristina Rucci, Social Planner
5. **Adjournment**

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Briefing Note: Bicycle Master Plan Update

June 13, 2012

Background

Since December 2010, District and City staff have been consulting with residents and cyclists to update the 2006 North Vancouver Bicycle Master Plan. The draft plan is available online at www.dnv.org/cycling and has been reviewed by the District's Transportation Consultation Committee (formerly TPAC) and the email-based cycling consultation group. The final report should be completed by the end of summer 2012.

Purpose of Update

Since the 2006 Bicycle Master Plan was endorsed by Council, a number of key projects have been implemented. The current process has provided the opportunity to update project priorities and routes, refine goals and objectives, and obtain community input on cycling. This emerging plan has also been reflected in the cycling section of the District's draft Transportation Plan.

Why Bicycle Master Plan Needed?

- Addresses OCP Policy: "Provide a more complete cycling network that is safe and efficient for both recreational and commuter cyclists."
- Provides strategies to improve environment, public health, safety, and equity.
- Allows the District to leverage partner funding from TransLink and the Provincial government.
- Identifies cost-effective infrastructure investments when compared to investments in other modes, and generates more health and environmental benefits.
- Can increase safety for all modes.

Proposed Plan Goals

Cycling is an important component of the District's transportation network and further cycling infrastructure improvements would help improve liveability, health, environment, and reduce future municipal transportation expenditures. The following are the proposed goals for plan:

- Goal #1 - Strengthen Community Connections
This goal would be achieved by establishing a bicycle network that will provide safe logical routes to serve cyclists of various ages and comfort levels. The draft plan update proposes off-road routes to better accommodate younger or newer cyclists. The 2006 plan did not consider these routes.
- Goal #2 - Support a Sustainable Transportation System
This goal is aimed at increasing the number of people who regularly use cycling as a means of travelling to encourage physical activity and reduce air pollution.

Many health benefits are associated with increased physical activity from active transportation. Physical activity is among the most significant modifiable behaviours that can influence a person's likelihood of developing chronic diseases such as diabetes, cardiovascular disease, obesity and cancer. In addition, replacing the number of car trips with active transportation could help reduce air pollution and associated respiratory illnesses.

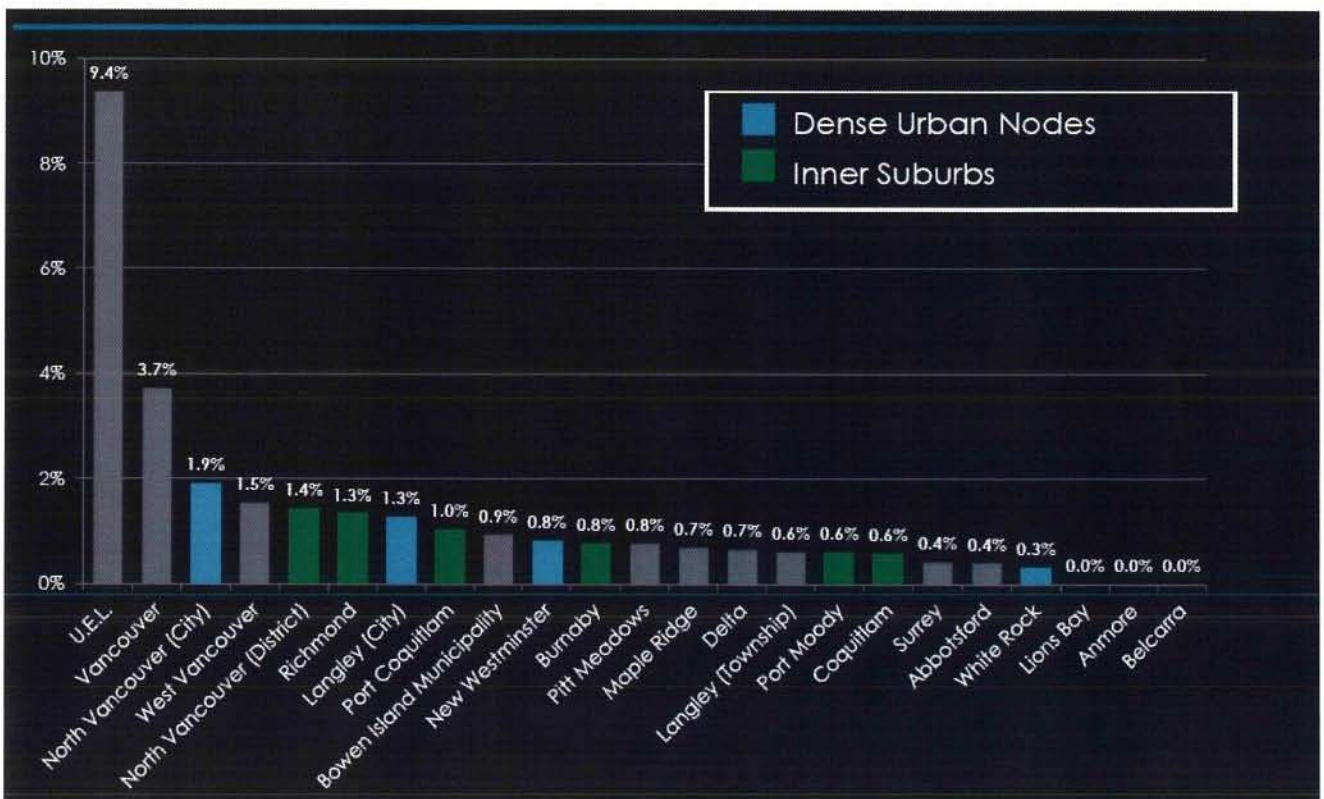
North Shore Health and Environment Facts:

- Over 9 percent of North Shore residents are obese and over 28 percent are overweight (Vancouver Coastal Health, 2009).
- Leading causes of death on the North Shore are cancer, cardiovascular disease, stroke, and respiratory disease (Vancouver Coastal Health, 2009).
- Motor vehicles account for about 43 percent of the District's greenhouse gas emissions that contribute to climate change.

The District has committed in its OCP to a collaborative approach to land use and transportation planning that will build complete communities that are well-served by transit and are easily accessible by walking and biking. A Memorandum of Understanding was also signed with the local health authority, Vancouver Coastal Health, to pilot a partnership to better integrate community health perspectives into planning for our built environment. The draft Bicycle Master Plan update includes strategic network improvements and goals to encourage more trips by cycling in North Vancouver, as a means to improve overall health and the environment.

Regional Comparison

- Excluding the City of Vancouver and University Endowment Lands, North Shore municipalities have the highest cycling mode share in the region.
- District of North Vancouver has the highest cycling mode share of the municipalities classified as an inner suburb.



Source: TransLink, "Cycling Module", 2012

Consultation Results to Date

- District of North Vancouver Transportation Plan priorities survey (Spring 2012)
 - ✓ Improving both on-street and off-street cycling connections and expanding cycling routes in areas with greater cycling potential is a high priority for District residents young and old, whether they cycle or not.
- Bicycle Master Plan survey (2011)
 - ✓ The majority of District residents that responded indicated that they prefer separation from vehicular traffic. That is, they prefer cycling along cycle paths, multi-use paths, residential streets, and bike lanes.
 - ✓ Of the current cyclists in the District, almost half travel more than 10 kilometres each day and around half remain on the North Shore on a typical day.

Proposed Policy Framework for Future Cycling Investments

Cycling projects may be controversial and/or not well-understood. In addition, it is incumbent to allocate funding to those projects that are likely to achieve the most benefit at the lowest cost. For these reasons, policy guidance from Council would be helpful to guide the selection of projects.

The following policy framework could be considered to guide future cycling investments:

- The District should invest in cycling projects that leverage a minimum of 25 percent partner funding.
- Technical review and wide-spread public consultation should be completed for those projects where road space reallocation is being considered to accommodate cycling facilities.
- Project priorities should be determined based on Transportation Plan criteria, which includes the goals outlined in the OCP.

Next Steps

The final report will be completed in summer 2012. Staff plan to seek endorsement of the Bicycle Master Plan update from both District and City Councils in early fall 2012.

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Memo

June 18, 2012
File: 16.8450.30/027.000

TO: Steve Ono, Manager, P.Eng., Manager, Engineering Services

FROM: Erica Geddes, P.Eng., Section Manager - Transportation

SUBJECT: EVALUATION OF BUS BAYS
EAST KEITH ROAD

Further to a request made at the Council Workshop of June 11, 2012, this memo summarizes the implications of an option that provides cycling facilities while maintaining two westbound lanes on East Keith Road. To do this, bus pullouts would need to be provided.

This memo supplements information provided in a briefing note dated May 30, 2012 and the independent technical review conducted in May 2012.

Background

An option of providing bays has been proposed to create a possible configuration of East Keith Road, between Sutherland and Brooksbank Avenues. The locations of the five bus stops are shown in FIGURE 1.



Figure 1 Five eastbound bus stops

This option was developed to allow two westbound vehicle lanes to remain, while providing cycling facilities in both directions.

The lane widths with this concept are shown in TABLE 1, along with the widths recommended (*Canadian Design Guidelines for Canadian Roads*).

**SUBJECT: EVALUATION OF BUS BAYS
EAST KEITH ROAD**

June 18, 2012

Page 2

TABLE 1

Lane Use	LANE WIDTHS	
	Provided in Concept	Recommended
One westbound bike lane	1.8 m	1.8 m
Two westbound vehicle lanes	6.5 m	7.0 m
<u>One eastbound shared lane (vehicle and bike)</u>	<u>4.3 m</u>	<u>4.3 m</u>
Total	12.6 m	13.3 m

(Available width is 12.6 m)

The lane widths in this concept would be less than the recommended widths, something that can increase the risk of sideswipe collisions.

To create this configuration, parking would need to be removed from the south side of East Keith Road. It is anticipated that the bus bays would need to be 3.0 metres wide so that motor vehicles do not cross the centreline when passing a stopped bus and cyclists do not need to enter the vehicle path. It is also anticipated that the transit operator will require a 3.0-metre bay, although this can be reviewed should the design proceed.

This configuration is shown schematically in FIGURE 2.



Figure 2 Proposed Configuration

This proposal has been discussed with the City of North Vancouver's transportation staff. A letter was sent on June 14, 2012 to the City Engineer to request consideration of this option.

City Council's previous decision will need to be re-visited so that parking could be removed from the south side of the road for this configuration to be feasible.

ANALYSIS

It appears that adequate road right-of-way is available along the south side of Keith Road to construct these bus bays and to relocate the adjacent sidewalk. Four of the five locations are relatively level, but one would involve relocation of a retaining wall.

A preliminary estimate indicates that construction of the bus bays would cost \$610,000, including engineering costs. Should a narrower pullout be feasible and approved by the transit operators, costs would be closer to \$520,000.

Transit operators generally prefer to stay in the same lane if possible. Pullouts are not preferred as the drivers must re-enter the vehicle stream. However, a similar configuration would occur if the parking were retained on the south side, as pullouts would have effectively been provided through pavement markings. Therefore, it appears transit could operate as effectively as with the other options for this road.

Comparison

When compared to the option of providing one westbound vehicle lane and a marked bike lane, the bus bay option would:

- Increase the distance and number of lanes that southbound vehicles need to traverse to cross or turn left onto East Keith Road;
- Provide a similar buffer for pedestrians walking along the sidewalk, but increase the risk for pedestrians crossing East Keith Road;
- Provide similar facilities for cycling;
- Reduce conflicts between eastbound cyclists and parked cars;
- Not provide any speed reduction;
- Not reduce westbound collisions; and
- Reduce vehicular travel times (the existing situation).

SUMMARY

The preliminary review indicates that this option provides a physical configuration that could accommodate two westbound vehicle lanes and cycling facilities in both directions. However, this option is not recommended at this time as:

- The cost of \$610,000 is significant and the full amount would likely need to be provided by the District;
- Lane widths would be sub-standard;
- The option achieves a marginal benefit to motorists for a significant additional capital cost, not anticipated in a re-paving project;
- It is not anticipated that City Council will reverse their decision to provide parking; and
- The option does not provide the speed reduction and safety benefits anticipated from reducing the number of westbound vehicle lanes.

ATTACHMENT - ALTERNATIVE LAYOUTS



Existing Layout: Two Westbound Lanes



Proposed Layout: One Westbound Lane



Parking Removed: One Westbound Lane

COUNCIL AGENDA/INFORMATION			
<input type="checkbox"/> In Camera	Date:	Item #	
<input type="checkbox"/> Regular	Date:	Item #	
<input type="checkbox"/> Agenda Addendum	Date:	Item #	
<input type="checkbox"/> Info Package	<u>JUNE 25. 12</u>		
<input checked="" type="checkbox"/> Council Workshop	DM#	Date:	Mailbox:

Dept. Manager	Director	CAO
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The District of North Vancouver REPORT TO COUNCIL

June 12, 2012

File: 13.6640.20/003

Tracking Number: RCA -

AUTHOR: Cristina Rucci, Social Planner

SUBJECT: Domestic Chickens - A Discussion and Exploration of Next Steps

RECOMMENDATION:

That Council provide feedback on the options outlined in this report to inform proposed directions regarding the keeping of backyard chickens.

REASON FOR REPORT:

To provide further information and seek the direction of Council regarding the keeping of backyard chickens in response to a recent a delegation by the Council of Canadian Liberated Urban Chicken Klub (CLUCK).

SUMMARY:

The keeping of backyard chickens in urban areas is becoming an increasingly popular trend not only in Metro Vancouver, but across North America. This trend has been prompted by people's growing interest in the health and safety of their food as well as by heightened sensitivities around the environmental impact of food and other sustainability issues. In North Vancouver, members of the North Vancouver Chapter of the Canadian Liberated Urban Chicken Klub (CLUCK) approached the Councils in both the City and District of North Vancouver in April of this year to request that they consider enacting a new bylaw which would allow for the keeping of backyard chickens. Through this report, staff provides further clarification around this issue and reports on the findings of the recent studies on this issue as well as the preliminary feedback received from Vancouver Coastal Health, Bear Aware and the local Conservation Officer. A range of potential options are outlined in order to gain Council feedback on the keeping of backyard chickens at this time and to assist staff in developing a recommended direction for Council's consideration at a future date.

BACKGROUND:

At the Regular Council Meeting on April 16, 2012, Council received a delegation from the CLUCK. At the meeting, CLUCK presented a proposal to amend bylaws to allow District residents to keep chickens at their place of residence.

Council requested that staff review the bylaw, work in conjunction with the City of North Vancouver and report back at a future meeting.

EXISTING POLICY:

Policies 6.3.12 and 6.3.15 of the Official Community Plan supports the District's involvement in food security and urban agricultural initiatives, as stated below:

Encourage sustainable, local food systems through initiatives such as promotion of healthy, local foods and food production, and the facilitation of community gardens, farmers markets, urban agriculture initiatives in appropriate locations.

Develop a food policy that defines the District's vision and commitment to facilitating a food system that supports long-term community and environmental issues.

As well, policy 6.3.12 states the following with regards to health and nutrition:

Collaborate with Vancouver Coastal Health and other community partners in their efforts to provide increased access for all members of the community to safe, nutritious food.

The keeping of poultry is currently prohibited in the existing Zoning Bylaw under section 403A(1)(b)(i).

ANALYSIS:

The keeping of backyard chickens is gaining increased popularity not only in Metro Vancouver, but across North America as well. CLUCK is eager that Mayors and Councils in both the City and District consider amending their existing bylaws to allow backyard chickens, similar to what other municipalities have done across the province. The benefits associated with the keeping of backyard hens are included in Attachment A and include benefits associated with health, the environment and the community.

Following the presentation from CLUCK, Mayor and Council received a letter as well as a petition that was signed by a number of District residents concerned about allowing backyard chickens. The concerns expressed by residents include the potential that they will increase bear activity and the risk of Avian Influenza and Salmonella, odour control (including waste removal), noise, increased staff costs associated with bylaw enforcement issues as well as the humane treatment and disposal of chickens. Staff has consulted with local experts and has conducted research regarding many of the concerns expressed.

Increased Bear Activity

Staff has been in discussion with representatives from the Bear Aware Network and the local Conservation Officer (CO), around the correlation between chickens and increased bear activity. Although the CO did not state his position around the keeping of backyard chickens, he did articulate that his role in participating in the debate was around offering his expertise in wildlife management and to take a proactive role in order to avoid conflict.

According to his own personal field experience, as well as the experience of other CO's across the Province, the CO articulated that chickens do and will attract dangerous wildlife, including cougars, coyotes, wolves and bears as well as other wildlife such as racoons and skunks. However, he did note that if effective and enforceable measures were put in place, then conflict would be minimized. Proper pen construction, secure enclosures, feed storage, cleanliness, etc., all contribute to upholding the harmony between wildlife and humans. The CO further noted that municipalities do have a role and must be diligent in ensuring that residents interested in raising chickens abide by bylaws that are enforceable.

Staff from the Bear Aware Network concurred with the CO's synopsis and added that municipalities should further take an active role in ensuring that District residents reduce all bear attractants, including garbage, which is the most significant bear attractant.

Both the CO and representative from Bear Aware did comment on the idea of requiring electrical fencing as a way to deter bears and other wildlife from entering a property with chickens, particularly along greenways, creek beds, etc. Both concur, that if done correctly, and if properly installed and mainlined, electrical fencing is a very effective way to deter wildlife. They also noted, however, that the fencing is very expensive and that the voltage needed to deter wildlife would be felt by a child, which may involve some risks. Staff contacted a local chicken expert in the City of Vancouver and he also commented that low voltage electrical fencing (including solar fencing) is an effective deterrent. He also noted that electric fencing should be a choice for educated residents to make and not a requirement.

Increased Risk of Avian Influenza and Salmonella

In the preparation of their bylaw to allow backyard chickens, the City of Vancouver conducted substantive research around public health concerns commonly associated with the keeping of hens in urban environments. In particular, the City examined Avian Influenza and Salmonella and worked with Vancouver Coastal Health at great length in order to ensure that all the necessary measures would be taken in order to reduce any health risks associated with the keeping of backyard hens. The City of Vancouver's report dated March 24, 2010 is included as Attachment B for Council's information.

Staff also contacted the Manager, Health Protection from Vancouver Coastal Health's North Shore office and he reiterates that the position taken in Vancouver would be the same position that would be taken on the North Shore. He also makes reference to a recently published article 'Raising Chickens in City Backyards: The Public Health Role' – Journal of Community Health (2012, 37:734-742). The following conclusion is reached in the article:

Overall, the risk of pathogen transmission given backyard chicken keeping appears to be low and does not present a greater threat to the public's health compared with keeping other animals allowed by similar bylaws such as dogs and cats."

The article contains information on Avian Influenza (AI) specifically. It states:

While the potential for air droplet transmission exists for AI in commercial poultry operations, it is less relevant for urban backyard chicken scenarios (limited number of birds, outdoor confinement and less potential for reaching high pathogen loads in adjacent air).

If Council considers moving forward with a chicken bylaw, staff will work closely with the Health Authority to ensure that the regulations satisfy concerns around health and safety. It should be noted that VCH has been very supportive of this initiative as it increases local and healthy food options.

Noise and Odour

As discussed in the City of Vancouver's report and also as noted in the research provided by CLUCK, the noise produced by chickens is relatively quiet and intermittent and is not likely to be a significant nuisance, particularly if pens are situated appropriately on the site. The District's Noise Regulation Bylaw 7188, also limits sounds which are objectionable or liable to disturb the quiet, peace, rest, enjoyment, comfort or convenience of individuals or the public, including any noises or sounds which occur continuously or discontinuously for 15 minutes or more created by animal activity.

In terms of odours, if properly maintained, unpleasant odours should be avoided. Any chicken bylaw prepared by the District would include a provision requiring enclosures to be maintained in a sanitary condition, free of obnoxious smells and substances.

Increased Staff Costs Associated with Bylaw Enforcement

The District's Senior Animal Welfare Officer undertook a random sampling of municipalities across BC that allow chickens or are considering adopting a bylaw which would allow chickens in their municipality. As part of the analysis, included as Attachment C, staff sought input on the number of complaints received due to chicken activity. As indicated in the attachment, the number of complaints received has been relatively low and have been mainly associated with noise (rooster related) as well as some odour complaints, which are mainly due to improper siting. In the City of Vancouver, they sought and received funding for a chicken coop but have not yet built the facility as there has not been the demand, and in fact, they have been able to accommodate the 4-10 annual chickens that they receive in their dog runs. It should be noted that the chickens they do receive are boilers that have fallen from trucks or roosters. In terms of complaints, the City is receiving approximately 20 a year, mostly around rooster related noises (which are not permitted and would not be permitted in the District either).

As a way to circumvent any complaints that would need to be responded to by District staff, a suggestion was made that members of CLUCK could act as an intermediary. In this role, they would contact the chicken owner to ensure that the person is properly educated and

understands District regulations. As well, members of CLUCK are agreeable to maintaining a blog which would be a forum where chicken owners could post questions regarding the raising and maintenance of their hens.

Humane Treatment of Hens

Any bylaw created in the District of North Vancouver would include regulations which would ensure the humane treatment of hens is a priority.

In addition to regulations contained in the bylaw, which would specify setbacks, specifications related to coop and run construction and the disposal of hens, staff would also suggest that any resident interested in owning backyard chickens would be required to attend a course on chicken rearing. Maplewood Farm could act as an ideal location for this course and could be an additional way for the farm to generate some income. Farm Staff have expressed interest in this idea, which was also supportable by members of CLUCK, Bear Aware and other community partners.

Timing/Approval Process:

This report follows on a delegation to Council by CLUCK in April, 2012. The City of North Vancouver is anticipated to report to their Council on this matter in July. Council's feedback from the workshop will help inform proposed directions on the keeping of backyard chickens that would be the subject of a future Council report.

Concurrence:

Staff worked closely with the past Manager of Animal Welfare Services, as well as the Senior Animal Welfare Officer, in preparing this report.

In addition, staff from North Shore Recycling, Maplewood Farm and Bear Aware were consulted along with Vancouver Coastal Health and the local Conservation Officer in an effort to become more aware of the potential conflicts that could arise with the introduction of backyard chickens in the District of North Vancouver. In addition, advice was sought on next steps, such as to how to proceed with public consultation.

Following the delegation made by CLUCK in the City of North Vancouver on April 2nd, the City of North Vancouver Council passed the following resolution:

THAT Council approve in principle the urban chicken proposal presented by the Canadian Liberated Urban Chicken Klub (CLUCK);

AND THAT staff be directed to report back to Council on this proposal and to prepare bylaw revisions based on it.

Based on City Council's resolution, staff have prepared options regarding possible bylaw amendments which would permit backyard chickens. City Staff anticipate that their report to will go to Council on either June 18th or June 25th. District staff will be able to provide further clarification on the City of North Vancouver's direction on this matter at the June 25th workshop.

Financial Impacts:

Staff time and resources would be required for the public consultation process and the potential development of a new bylaw. If a new bylaw is adopted, bylaw enforcement would add to the workload of the Animal Control Officer.

Social Policy Implications:

The social benefits associated with backyard chickens are linked to food security, access to safe, healthy and nutritious foods as well community development and education, for both children and adults. These values are linked to the District's Official Community Plan, which was adopted last year. Noise, odour and other potential impacts exist and would need to be effectively managed as outlined in this report.

Environmental Impact:

The introduction of backyard chickens into the urban environment contributes to the environmental management and sustainability of cities, in that chickens provide natural insect control, they aerate the soil and break down larger pieces of vegetation, thereby accelerating the decomposition process. Also, the keeping of backyard hens fits into environmentally-sustainable living practices such as the reduction of greenhouse gas emissions, the 100 Mile Diet and food security. Wildlife conflicts, the management of chicken waste and disposal are potential issues that would need to be effectively managed as outlined in this report.

Conclusion:

The keeping of backyard chickens is one aspect of the urban agricultural movement which is gaining increased attention and popularity in small towns and suburban communities as well as major metropolitan urban centres, from the City of Vancouver to New York City. Despite potential conflicts that could arise due to the keeping of backyard hens, there are many measures that could be adopted to mitigate these conflicts and to maintain harmony between nature and human activity.

To assist in gaining Council's feedback and direction at this time, various options may be considered in the discussion at the June 25th Council workshop including:

- Receiving information on backyard chickens and taking no further action at this time; or
- Convening a public information meeting in collaboration with community partners such as NS Recycling, Bear Aware, Maplewood Farm, Vancouver Coastal Health, the Conservation Officer as well as community groups such as CLUCK to determine level of interest and reporting subsequently to Council; or
- Developing a pilot project to assess the compatibility of backyard chickens in the DNV context, develop model bylaws and monitor outcomes; or
- Developing a bylaw, potentially in partnership with CNV to allow backyard chickens and in consultation with the public; or

SUBJECT: Domestic Chickens - A Discussion and Exploration of Next Steps

June 12, 2012

Page 7

- Considering the keeping of backyard chickens at a future time in the context of development of a more comprehensive food policy for the District which is an objective of the OCP.

Council's feedback is being sought on this matter at this time. Arising from this discussion with Council, staff will make recommendations regarding the keeping of backyard chickens for Council's consideration at a regular meeting.


Cristina Rucci
Social Planner

Attachment A: Benefits of Raising Backyard Chickens
Attachment B: Report from the City of Vancouver dated March 24, 2010
Attachment C: Random Sampling of Municipalities Across BC that have or are considering a Chicken Bylaw

REVIEWED WITH:	REVIEWED WITH:	REVIEWED WITH:	REVIEWED WITH:
<input type="checkbox"/> Sustainable Community Development	<input type="checkbox"/> Clerk's Office	External Agencies:	Advisory Committees:
<input type="checkbox"/> Development Services	<input type="checkbox"/> Corporate Services	<input type="checkbox"/> Library Board	<input type="checkbox"/> _____
<input type="checkbox"/> Utilities	<input type="checkbox"/> Communications	<input type="checkbox"/> NS Health	<input type="checkbox"/> _____
<input type="checkbox"/> Engineering Operations	<input type="checkbox"/> Finance	<input type="checkbox"/> RCMP	<input type="checkbox"/> _____
<input type="checkbox"/> Parks & Environment	<input type="checkbox"/> Fire Services	<input type="checkbox"/> Recreation Commission	
<input type="checkbox"/> Economic Development	<input type="checkbox"/> Human resources	<input type="checkbox"/> Other: _____	
	<input type="checkbox"/> ITS		
	<input type="checkbox"/> Solicitor		
	<input type="checkbox"/> GIS		

Benefits of Raising Backyard Chickens:

- 1) **Eggs from well-tended backyard chickens are healthier.** Factory farmed chickens live their lives without ever touching the soil or being allowed to hunt and peck for bugs. They are fed an unnatural and unvaried diet. These environmental conditions are designed to produce eggs quickly and cheaply in the factory farm. However, the result is an egg that is less nutritious than one produced by chickens allowed to exercise, peck for bugs and engage in their natural chicken-y behaviour.

In contrast to factory farm eggs, eggs from backyard chickens have 25 percent more vitamin E, a third more vitamin A and 75 percent more beta carotene. They also have significantly more omega-3 fatty acids than factory farmed eggs.

- 2) **Eggs from backyard chickens are tastier.** Eggs produced in the grocery store can be weeks – even months – old. As these eggs age, air seeps into the naturally porous eggshell, degrading not just the nutrition, but also the taste and affecting the consistency of the egg.

Fresh eggs from backyard chickens have firmer whites and bright orange yolks. But the real difference is the taste. Backyard chicken eggs have a more robust taste that is difficult to describe.

- 3) **Chickens are natural composters from start to finish.** Chickens love to eat table scraps and just about anything you were otherwise going to put in your compost. On the other end of things, chicken droppings are high in nitrogen. Added to the compost bin, they add more nitrogen and improve your compost. Chicken manure is a highly regarded additive to soil for most gardeners and is sold in garden centres regularly.
- 4) **Chickens provide natural insect and weed control.** As they hunt and peck around the yard, chickens gobble up grubs, earwigs and other bugs, treating our garden pests as tasty, nutritious treats. They are also voracious weed eaters – dandelions being one of their favourites.
- 5) **Their scratching for bugs is good for the soil.** Chickens are enthusiastic foragers and will scratch around in the leaves and soil searching for the tastiest morsels. As they do, they aerate the soil and break down larger pieces of vegetation with their sharp talons, accelerating the decomposition process.
- 6) **Chickens are fun and interesting.** Every chicken has a personality – and lots of it. They aren't particularly smart, but when properly socialized, chickens can be very friendly and even do tricks.

- 7) **Backyard chickens provide lessons for children about responsibility and where food comes from.** Tending chickens is pleasurable and even easier than caring for a dog. There is no walking the chickens or giving them a bath. However, chickens do require daily food and fresh water. The coop must be cleaned and the chickens inspected regularly to ensure they are healthy. Children can participate in all of these chicken-related chores.
- 8) **The keeping of backyard hens allows hens to live out their lives in humane conditions with caring and attentive owners.** The conditions that most chickens are forced to exist in, large commercially run operations, are deplorable. Chickens are housed by the thousands, crammed three or four to a cage. As mentioned most of these hens never see the light of day or touch the earth throughout their entire lives.
- 9) **The keeping of backyard hens fits into environmentally-sustainable living practices such as the reduction of greenhouse gas emission, the 100 Mile diet, and food security.** It is also extremely cost-effective and requires very little start-up capital. It also educates the owners, their children and neighbours, or animal husbandry, farming techniques and food production. This contributes to a more aware community, and neighbourhood connection.
- 10) **The keeping of backyard hens builds community through the sharing of education and resources.** Our website, www.chickensinnorthvancouver.com, will create an automatic communication hub where people can come together to share advice, information, and even tools or eggs. All of this contributes to developing and sustaining community in North Vancouver.

Supports Item No. 3
P&E Committee Agenda
April 8, 2010



POLICY REPORT
LICENSING

Report Date: March 24, 2010
Contact: Tom Hammel
Contact No.: 604.873.7545
RTS No.: 08315
VanRIMS No.: 08-2000-20
Meeting Date: April 8, 2010

TO: Standing Committee on Planning and Environment
FROM: Chief Licence Inspector
SUBJECT: Guidelines for Keeping of Backyard Hens

RECOMMENDATION

- A. THAT proposed amendments to the Zoning and Development By-law regarding keeping of backyard hens, as outlined in this report and in Appendix A, be referred to Public Hearing;

FURTHER THAT the Director of Legal Services be instructed to prepare the necessary amending by-law, generally in accordance with Appendix A, for consideration at the Public Hearing;
- B. THAT, subject to the approval of the amendments to the Zoning and Development By-law at a Public Hearing,
 - i. The Animal Control By-law be amended to provide regulations for the keeping of backyard hens, generally in accordance with this report and Appendix B.
 - ii. Council authorize the Chief Licence Inspector to establish and administer an on-line registry for backyard hen keepers, generally in accordance with this report.
 - iii. Council authorize the expenditure of \$20,000 from the existing Community Services capital budget for construction of a facility to house seized or abandoned hens at the Vancouver Animal Control shelter.
- C. FURTHER THAT the Director of Legal Services be instructed to bring forward, at the time of enactment of the amendments to the Zoning and Development By-law regarding the keeping of hens, a by-law to amend the Animal Control By-law, generally in accordance with Appendix B.

- D. FURTHER THAT the Director of Legal Services be instructed to bring forward, at the time of the establishment of the on-line registry, a by-law to amend the Animal Control By-law, generally in accordance with Appendix C.

GENERAL MANAGER'S COMMENTS

The General Manager of Community Services RECOMMENDS approval of A, B, C and D.

COUNCIL POLICY

On March 5, 2009, Council passed a resolution directing Legal Services to bring forward an amendment to the Animal Control By-law removing the prohibition of keeping of backyard hens, and directing staff to develop policy guidelines that both protect the health and welfare of citizens, and ensure the humane treatment of backyard hens.

In January 2007, Council adopted the Vancouver Food Charter which sets out the City's commitment to the development of a coordinated municipal food policy that recognizes access to safe, sufficient, culturally appropriate and nutritious food as a basic human right for all Vancouver residents.

On July 8, 2003, Council approved a motion supporting the development of a just and sustainable food system for the City of Vancouver that fosters equitable food production, distribution and consumption; nutrition; community development and environmental health.

In April 2002, Council adopted a formal position, definition and principles on sustainability.

SUMMARY

This report provides recommendations for the humane and sanitary keeping of backyard hens in Vancouver. These recommendations include amendments to Zoning and Development By-law No. 3575 and Animal Control By-law No. 9150, creation of an on-line registry for hen keepers, and funding for facilities to house hens at the Vancouver Animal Control shelter. The Zoning and Development By-law amendments must proceed to Public Hearing prior to Council action. Since the Zoning and Development By-law amendments are integral to the proposed system of regulation, the remainder of the recommendations are contingent upon their approval.

The proposed by-law amendments, and basic features of the proposed on-line registry, are outlined in Table 1 below:

Table 1. Recommended By-law and Registry Provisions

Recommended By-law and Registry Provisions for Backyard Hens		
SUBJECT	RECOMMENDED PROVISION	BY-LAW
Allowable zones	Single and multi-family residential zones (RA-, RS-, RT-, RM-, FM-, FSD-)	Z & D
Siting restrictions for hen enclosures	– 1 m from property line – 3 m from windows and doors of dwellings	Z & D

	<ul style="list-style-type: none"> – Reduced exterior side yard setback on corner lots – May not be located in front yards – Must be located at grade level 	
Size restrictions for hen enclosures	<ul style="list-style-type: none"> – Maximum area 9.2 m² (100 ft²) – Maximum height 2 m 	Z & D
Number and type of chickens allowed	<ul style="list-style-type: none"> – Maximum 4 hens per lot, at least 4 months old – No roosters 	AC
Housing requirements	<ul style="list-style-type: none"> – Minimum 0.37 m² (4 ft²) coop space and 0.92 m² (10 ft²) enclosed run space per hen – Entire structure must be roofed – ≥15 cm perch for each hen and one nest box – Hens must remain enclosed at all times 	AC
Basic care	Hens must be provided food, water, shelter, adequate light and ventilation, veterinary care, and opportunities to scratch, dust-bathe, and roost.	AC
Pest control	<ul style="list-style-type: none"> – Enclosures must be: <ul style="list-style-type: none"> ▪ kept in good repair and sanitary condition ▪ constructed to prevent access by other animals – Food and water must be kept in coop at night – Manure /waste must be removed in timely manner – Up to 1 m³ of manure may be kept for composting 	AC
Biosecurity	Must follow biosecurity procedures recommended by the Canadian Food Inspection Agency (CFIA)	AC
Other regulations	<ul style="list-style-type: none"> – No slaughtering allowed – No sales of eggs, manure, or other products 	AC
Registry basics	<ul style="list-style-type: none"> – Register on-line or by phone – No registration fee – Registration materials available in six languages – Registrants must reside on lot with hen enclosure 	AC
Information provided on registry website	<ul style="list-style-type: none"> – By-law requirements – Resource page with links to Best Management Practices (BMPs), humane education, and biosecurity information – List of upcoming chicken workshops 	N/A

These recommendations have been reviewed by a number of stakeholders, including staff from several departments (Development Services, Social Policy, Animal Control, and Law); City committees including the Food Policy Council, the Urban Agriculture Steering Committee, and the Policy Implementation Advisory Committee (PIAC); and the interested public. A summary of comments from the public is included as Appendix G.

PURPOSE

This report provides recommendations regarding the keeping of backyard hens, including zoning requirements, animal control regulations, and funding for animal shelter facilities to house impounded and abandoned hens.

BACKGROUND

The Animal Control By-law prohibits the keeping of chickens or other fowl. This prohibition has been in place since 1968, and perhaps earlier. The Animal Control By-law also contains provisions for the housing, impoundment, and disposition of “other animals,” which are defined as “any animal except a dog or domestic cat.”

Section 10.18 of the Zoning and Development By-law requires buildings or runs for birds and animals to be set back 9.1 m (30 feet) from any dwelling, and 18.3 m (60 feet) from the front property line (except in the RA-1 district). It also requires such structures to conform to all applicable by-law provisions applicable to accessory buildings. This section does not define birds and animals, but instead refers to Health By-law No. 6580 (which has since been superseded by the Animal Control By-law). No other reference to birds and animals, and their enclosures, is found in the Zoning and Development By-law.

Although prohibited, some backyard hens are kept in the City, and many individuals have expressed interest in keeping them. Enthusiasm for urban chickens has grown throughout North America in the past few years, as increased attention is paid to issues of sustainability, food security, and consumption of locally grown food. During this time, many North American cities have enacted or updated by-laws to allow keeping of chickens. A summary of by-laws in select North American cities, including Lower Mainland municipalities, is provided as Appendix D.

DISCUSSION

To fulfil Council’s mandate to allow the humane and sanitary keeping of backyard hens, staff recommends adoption of several by-law amendments. These by-law amendments are intended to meet three criteria: protection of public health and welfare; humane treatment of hens; and reasonable access to hen keeping for Vancouver residents.

Siting of Chicken Coops

In order to allow hen keeping by most Vancouver residents, staff recommends a reduction of current zoning setbacks for bird and animal enclosures, and designation of hen keeping as an allowable use in single-family, two-family, and multi-family zones.

Currently, zoning regulations for bird and animal enclosures require a 9.1 m (30 foot) setback from adjacent dwellings, and an 18.3 m setback from the front property line. These setbacks would prohibit hen keeping on many residential lots, most of which are 10 m wide, and some of which are less than 8 m wide. Therefore, staff recommends that a new section be added to the Zoning and Development By-law with specific requirements for hen enclosures. These include a 1 m side yard setback and a 3 m setback from any door or window. The latter requirement would allow hen enclosures to be located adjacent to a deck, porch, or shed, while providing a larger 3 m setback from building interiors. The recommended setbacks would allow for hen enclosures on residential lots with laneway housing, and on many lots

would allow “chicken tractors,” a rotational grazing system utilizing movable coops and runs. Appendix F illustrates how hen facilities would fit on a standard single family residential lot with the recommended setbacks. Under the proposed by-law amendment, hen enclosures would be allowed in side yards, and anywhere in rear yards, including outside of designated accessory building areas. They would not be allowed in front yards.

Corner flanking lots, which lie at the intersection of two streets, and whose rear yard flanks the front yard of the lot behind (with or without an intervening lane), require particular consideration. These lots have one front yard and three side yards, including an exterior side yard (along the flanking street) with a 7.3 m side setback in many residential zones. In order to allow hen enclosures on these lots, staff recommends that the exterior side setback be reduced to the existing or conforming exterior side setback of the primary residence, whichever is greatest.

Staff recommends that hen keeping be allowed in all residential zones, including multi-family, and that all of those zones be subject to the same requirements. Thus, a multi-family development could have four hens per lot, not four hens per unit, and hen facilities must be at grade level. These requirements are necessary to limit the concentrations of birds, for public health reasons, and to ensure that birds receive access to earth for scratching. Another recommendation applicable to all zones is the requirement that keepers of hens reside on the lot containing the hen enclosure, in order to ensure that hens receive appropriate care and supervision. Thus, under the proposed by-law provisions, an apartment dweller could maintain a flock of four hens in the yard of the apartment complex, but could not keep the hens on a balcony. It would be the tenant’s responsibility to obtain property owner approval for keeping hens.

Staff recommends that hen keeping be prohibited in commercial, industrial, and comprehensive development zones, with the exception of the First Shaughnessy District (FSD), due to the lack of suitable physical environments and absence of supervision on many commercial and industrial sites, particularly after the close of business. Staff also recommends that hen facilities be prohibited, for the time being, in public parks and community gardens, again due to the absence of consistent supervision, particularly at night, and the complexity of establishing responsibility for maintenance and care of the hens. The latter recommendation could be revisited once basic hen keeping provisions are in place, and a more detailed review of communal hen keeping is possible.

Staff also recommends some limits on the size and height of hen facilities, including a 9.2 m² (100 ft²) floor area limit, and a 2 m height limit. The height restriction is recommended to minimize visual impacts, and the floor area restriction allows the coop to be exempt from Floor Area Ratio (FAR) limits and building permit requirements.

Humane Treatment

In its resolution, Council cited the humane treatment as a priority in the development of guidelines for keeping hens. Humane treatment of farm animals is commonly defined by the “five freedoms,” as developed by the Farm Animal Welfare Council, an advisory body to the UK government. These include:

1. Freedom from thirst, hunger and malnutrition - by ready access to fresh water and a diet to maintain full health and vigour.

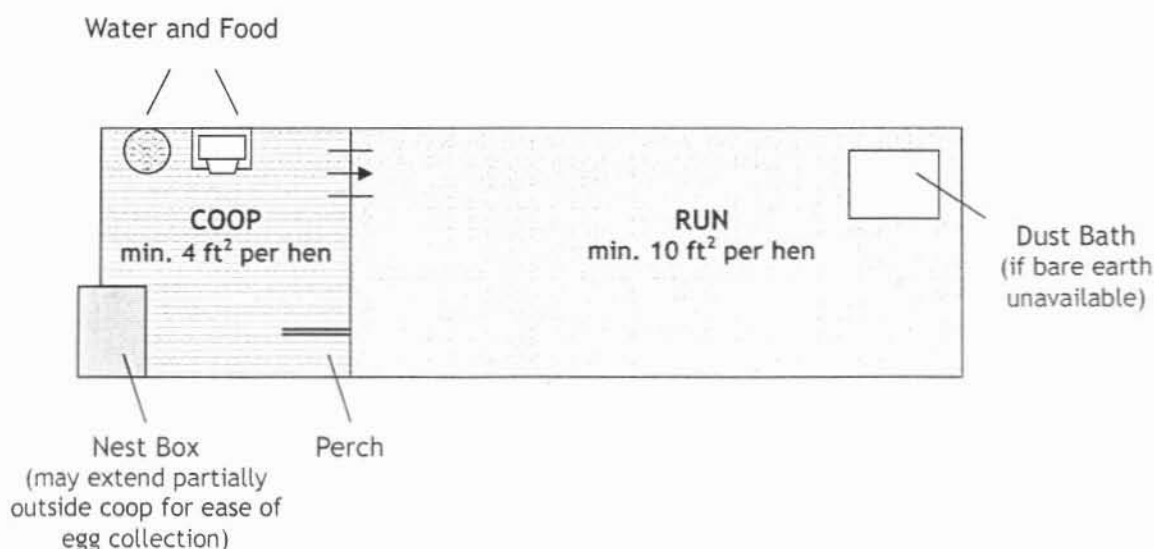
2. Freedom from discomfort - by providing a suitable environment including shelter and a comfortable resting area.
3. Freedom from pain, injury and disease - by prevention or rapid diagnosis and treatment.
4. Freedom to express normal behaviour - by providing sufficient space, proper facilities and company of the animals own kind.
5. Freedom from fear and distress - by ensuring conditions that avoid mental suffering.¹

To enjoy the Five Freedoms, hens need shelter, food, water, adequate space, environmental conditions (such as adequate ventilation and light) conducive to good health, and the opportunity to socialize and engage in fundamental behaviours, which for them include scratching (foraging by scraping the ground with their claws), roosting (resting on a stick or branch), and dustbathing (thrashing around in the dirt to clean feathers and remove parasites). These needs must be met under the recommended requirements for care of backyard hens.

For shelter and protection from predators, hens need an enclosed house, with a locking door, which is known as a coop. Coops should contain a nest box, in which hens will lay their eggs, and one or more perches per bird. Hens also need access to the outdoors, either by free ranging or by use of an enclosed outdoor space that allows them ground on which to scratch and peck. For hens without access to bare earth, a dust bath, made of any combination of sand, soil, ash, food grade diatomaceous earth (to control parasites) or other similar material, should be provided. Schematic views of standard coops and outdoor enclosures are provided in Figure 1 below.

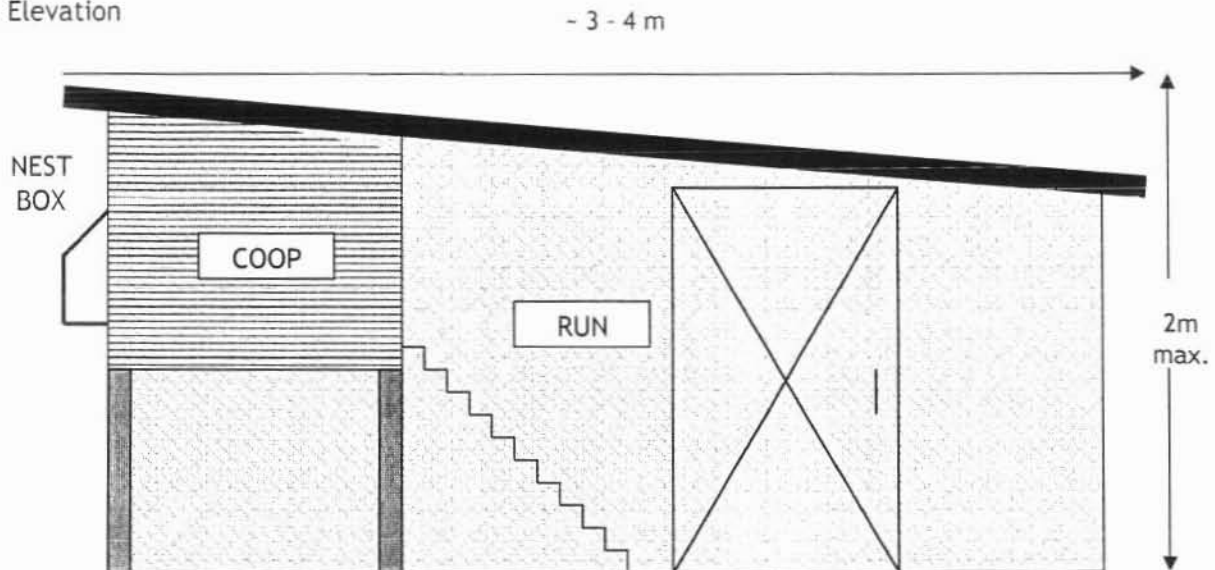
Figure 1. Schematic Depiction of Coop and Run

a. Plan View



¹ Farm Animal Welfare Council. Five Freedoms. Retrieved January 14, 2010 from <http://www.fawc.org.uk/freedoms.htm>

b. Elevation



Hens also require adequate space. Too little space can be a stressor for hens, who may respond with aggressive behaviours such as egg eating, pecking at each other, and cannibalism. Too much space in the coop can increase heating demands. Significant debate exists on the amount of space required to raise hens. While most large-scale commercial producers provide between 0.8 ft^2 - 1.2 ft^2 of space per hen, space requirements for smaller free range, organic, and humane-certified flocks are more generous. Recommended cage-free or free range indoor space requirements vary from 1.5 ft^2 to 8 ft^2 per hen, depending on the size of the hen and other factors. Appendix E lists space recommendations from a variety of sources, with a mean recommendation of between 3 ft^2 and 4 ft^2 per hen.

The staff recommendation includes a minimum space requirement of 0.37 m^2 (4 ft^2) of coop space and 0.92 m^2 (10 ft^2) of outdoor enclosure, reflecting the roomier standards found in Appendix E. This liberal space allotment is appropriate, given that the hens will be continuously confined. Other housing requirements include a nest box, to accommodate the need for seclusion during egg-laying, and one $\geq 15 \text{ cm}$ perch per bird, to allow hens to engage in roosting, an essential behaviour. Keeping hens in cages, which would prevent them from utilizing the full space allotment, and may cause injury, is not allowed in the proposed by-law amendment.

The staff recommendation also prohibits slaughtering or attempts at euthanasia by those who keep hens, as slaughtering by untrained individuals can result in unnecessary suffering. Hens at the end of their lives may be euthanized by a veterinarian (at an estimated \$40 cost), or taken to a farm or abattoir for slaughtering. Chicken carcasses may be taken to the Vancouver Animal Shelter for cremation, or disposed of in any other legal manner (i.e. buried in a pet cemetery, or in any other area where burial is allowed under Ministry of Environment regulations, or composted on a farm). Chicken carcasses are not allowed in City garbage containers.

Another recommendation with humane implications is the restriction on hens younger than four months. As well as reducing the number of unexpected roosters, this provision is intended to reduce impulse purchasing of chicks and subsequent abandonment of no-longer-cute-and-fuzzy hens. Even so, it is expected that some adult hens will end up at the Vancouver Animal Control shelter, either through abandonment or impoundment. Provisions for housing these hens, as well as other enforcement considerations, are discussed under Enforcement below.

Along with regulations, education plays a vital role in promoting humane care. Staff therefore recommends that the on-line registry be a vehicle for ensuring that registrants receive basic information on chicken care and maintenance. Specifically, staff proposes that the registry include information and links on best management practices, humane considerations, biosecurity protocols, educational resources, and by-law requirements, including a list of local workshops on hen keeping, with a strong encouragement for all registrants to attend. Staff considered requiring registrants to attend a workshop, but does not recommend that this be a by-law requirement. The administrative process this would involve, including reviewing, assessing and endorsing the appropriate courses, and providing proof of course completion, would be difficult. In addition, many people that keep hens have prior experience and may not require courses to properly manage them. By forgoing the workshop requirement, staff recognizes that a balance must be maintained between providing adequate regulatory control and avoiding burdensome requirements.

Public Health and Welfare

Public health and welfare must be a primary concern when considering regulations for backyard hens. Many urban dwellers question whether hens are appropriate to keep in urban environments, and fear that they will bring disease, increased noise, unpleasant odours, and unwanted animals such as rodents to their neighbourhoods. This section examines some of the main health and nuisance concerns associated with backyard hens, and the measures proposed to address them.

Avian Influenza

Chickens, like other birds, are susceptible to forms of Type A influenza that are collectively known as “avian influenza” (AI). The AI virus is widespread, particularly among wild birds, but most forms produce relatively mild or no symptoms. AI can mutate, after circulation in a concentrated poultry population, into highly pathogenic forms (HPAI) that produce severe symptoms but this is less common.² AI is not an airborne disease, but is transmitted from infected to healthy birds via direct contact with birds and their droppings, feathers, and body fluids.³

AI has spread to humans in rare instances. Transmission from birds to human remains difficult, usually involving prolonged and close contact, and human-to-human transmission has been suspected in only a handful of cases.⁴ The greatest risk of infection for humans appears to be

² World Health Organization (WHO). Avian Influenza Fact Sheet. Retrieved January 14, 2010, from http://www.who.int/mediacentre/factsheets/avian_influenza/en/.

³ Food and Agriculture Organization of the United Nations (FAO). Questions and Answers - The Facts of Bird Flu. Retrieved January 14, 2010 from <http://www.fao.org/avianflu/en/qanda.html>.

⁴ World Health Organization (WHO). H5N1 Avian Influenza: Timeline of Major Events. Retrieved January 14, 2010 from http://www.who.int/csr/disease/avian_influenza/Timeline_10_01_04.pdf.

through the handling and slaughtering of live infected poultry. Public health concerns centre on the potential for the virus to mutate or combine with other influenza viruses to produce a form that could easily spread from person to person.

A high pathogenic H5N1 subtype of AI has caused virulent disease among birds in parts of Asia, Africa, and Europe, and rare but serious disease in humans. An outbreak of high pathogenic H7N3 AI occurred among poultry in the Fraser Valley in 2004, resulting in the deaths of 17 million birds (through disease and culling) but only two mild cases of flu among humans. A more detailed review of these outbreaks is provided in Appendix H.

Health authorities in Canada consider the risk of H5N1 reaching North America, or other HPAI subtypes spreading among backyard hens, to be extremely limited, particularly if biosecurity measures, such as those recommended by the CFIA, are followed.

The British Columbia Center for Disease Control (BCCDC) conducted a literature review on the risks of infectious disease from backyard hens and found that

Overall, the risk of pathogen transmission associated with backyard chicken keeping appears to be mild and does not present a greater threat to population health compared to other animals allowed by similar bylaws (reptiles, dogs, etc). Public adherence to proper hygiene will significantly mitigate the risk of any disease acquisition including pathogens commonly found in chickens.

Vancouver Coastal Health has worked with staff on developing the recommended guidelines and considers them to be protective of public health.

Dr. Victoria Bowes, a board-certified Poultry Veterinarian in the Fraser Valley and an authority on the Fraser Valley outbreak, considers the risk of HPAI among backyard hens to be minimal, stating that

As long as Asian HPAI-H5N1 remains foreign to Canada AND the birds don't move out of the backyard once they are placed, then the avian influenza disease risks are extremely low (almost negligible).

Similarly, Interior Health recently released a document entitled "Backyard Chickens in the Urban Environment," which is intended as a guide for municipalities considering the health implications of backyard chicken keeping. The document states

The risk of avian influenza development is not appreciably increased by backyard hens. Urban hen keepers should be encouraged to follow the advice of CFIA: Bird Health Basics - How to Prevent and Detect Disease in Backyard Flocks and Pet Birds.

The staff recommendation requires hen keepers to follow the CFIA biosecurity standards, and includes the standards as a required reading on the on-line registry. These measures are intended to limit introduction of diseases from other domestic poultry and cross-contamination between humans and hens. Staff further recommends that owners be required to provide veterinary care for hens sufficient to maintain them in good health.

A number of other recommendations also will serve to minimize any potential for AI in backyard hens. Limiting the number of hens to four per lot (including multi-family lots) will ensure that the densities required for LPAL to develop into HPAI are not found in the city, especially given the expected low percentage of residents who will keep hens. The potential for spread of any form of AI is further reduced by the recommended requirement that hens be kept continuously enclosed in a roofed, secure structure. Under these conditions, introduction of any viruses from wild birds or other backyard hens would be extremely limited.

A third recommendation that will reduce risks in the unlikely event of an outbreak, or in the event that HPAI is found among North American wild bird populations, is the requirement for all hen keepers to enrol in an on-line registry, and to update their registration in a timely manner. The registry database will allow health officials to pinpoint the locations of backyard hens should a health emergency arise.

Other recommendations that will limit the potential for the spread of disease include a prohibition on backyard slaughtering, which will reduce exposure to blood and other body fluids from diseased birds; a prohibition on sale of hen products, which will limit transfer of disease; and requirements to keep enclosures sanitary and free from accumulated manure and waste.

Salmonella

Salmonella is another health concern associated with poultry and eggs. *Salmonella* lives in the intestines of infected chickens, and can be shed in large numbers in the droppings. Humans who handle the birds or clean their enclosures can then be exposed to the bacteria, which can cause severe gastrointestinal illness if ingested. The guidelines recommended to reduce the risks of avian influenza will also help minimize the risk of *Salmonella* poisoning from contact with chickens. This risk is further reduced by the recommended prohibition of hens less than four months old, as chicks shed much more *Salmonella* than older birds. In addition, transmission of the bacteria will be limited by the recommended prohibition on commercial sale of eggs or other hen products.

With the recommended regulations in place, keeping of backyard hens should pose minimal risks to public health.

Nuisance Issues

The keeping of backyard hens raises potential nuisance issues, including increased noise, unpleasant odors, and attraction of unwanted animals, such as rodents and raccoons. In order to minimize nuisance issues in general, staff recommends that a maximum of four hens be allowed per lot. Specific nuisance issues, and recommended measures to address them, are outlined in turn below.

Noise

Laying hens produce a variety of vocalizations, none of which are very loud. Perhaps the loudest noise is an approximately five-minute period of cackling or squawking that occurs when a hen lays an egg. In an investigation conducted by staff from the City of Pleasanton, California, noise readings of a "squawking" chicken registered at 63 dbA at two feet away,

and would not register at nine feet away.⁵ For comparison, the average human conversation registers at about 60 decibels,⁶ and a barking dog can be as loud as 100 dbA.⁷

Noise Control By-law No. 6555 limits “continuous sound” levels in residential areas to 55 dbA in daytime and 45 dbA at night, measured from the point of reception. In addition, it prohibits the cries of animals or birds that can be easily heard by a person outside the premises, and that unreasonably disturbs the “quiet, peace, rest, enjoyment, comfort, or convenience” of that person. The same provision is applied to dog barking in the Animal Control By-law.

Given that noise from hens is relatively quiet and intermittent, it is unlikely to be a significant nuisance under the proposed guidelines, which provide setbacks and other management measures to ensure some separation between hen enclosures and neighbouring properties. Specifically, staff recommends minimum setbacks of 1 m from all property lines, and 3 m from all windows and doors. Given this separation, it is unlikely that hen sounds will be above allowable levels on neighbouring properties. The recommendation that hens be kept in their coops from sunset to sunrise, which is primarily to protect hens from predators, will reduce potential noise impacts at night.

Unlike hens, a crowing rooster can reach decibel levels of 85-90 dbA. For this reason, it is recommended that roosters be prohibited under the proposed by-law amendment. In this regard, it is also recommended that no chickens under the age of four months be allowed, as determining gender (and thus avoiding unexpected roosters) can be more difficult in young chickens.

Odor

Unpleasant odors, from accumulation of manure and/or food scraps, can result if chicken enclosures are infrequently cleaned and food is broadcast in the pens. Although chickens produce only a few tablespoons of manure per day, accumulations of manure can produce ammonia, which is both harmful for chickens and unpleasant for others. It is recommended to remove manure and scraps at least weekly, and preferably daily. Manure can be flushed down the toilet, or composted, but is not allowed in garbage cans in Vancouver. Composted chicken manure is an excellent fertilizer.

In order to address potential odor issues, staff recommends that a provision requiring enclosures to be maintained in a sanitary condition, free of obnoxious smells and substances, be added to the Animal Control by-law. Recognizing the value of composted chicken manure, as well the potential odor issues associated with manure accumulation, staff recommends a by-law provision that allows storage of up to 1 m³ of manure only if it is stored in a fully enclosed structure (such as a compost bin).

⁵ City of Pleasanton. Planning Commission Staff Report, October 26, 2005, Item 6f. Retrieved January 14, 2010 from <http://www.ci.pleasanton.ca.us/pdf/pcsr-6f-prz30-ord.pdf>.

⁶ National Agricultural Safety Database. Hearing Protection for Farmers. Retrieved January 14, 2010 from <http://nasdonline.org/document/1144/d000933/hearing-protection-for-farmers.html>.

⁷ Coppola, Crista L., Enns, R. Mark, Grandin, Temple. “Noise in the Animal Shelter Environment: Building Design and the Effects of Daily Noise Exposure,” *Journal of Applied Animal Welfare Science*, 9(1), 1-7.

Pests

Hen enclosures can also attract unwanted animals, including rodents seeking food scraps, and larger animals, such as raccoons, foxes, skunks, and coyotes, seeking eggs or a chicken dinner. For this reason, it is vital that hen enclosures be secure from other animals. In order to discourage rodents and predators who may be attracted by food scraps and potential prey, staff recommends by-law language that requires hen enclosures to be constructed and maintained to prevent rodents from being harboured underneath, within, or within the walls of the coop and the run, and to prevent access to the enclosure by any other bird or animal. As noted above, staff further recommends that owners be required to keep hens, as well as their food and water, in the coop between sunset and sunrise, and that the coop remain locked during that time. Lastly, staff recommends that any leftover feed be removed in a timely manner to discourage rodent interest.

Enforcement

Animal Control would enforce the recommended by-law provisions, using procedures currently authorized for control of "other animals." These procedures, which are outlined in the Animal Control By-law, include measures for impoundment, seizure, detainment, and disposal of animals, as well as descriptions of fees and penalties. To ensure that these measures would be available, staff recommends that the definition of "other animals" in the Animal Control by-law be clarified to include hens. Enforcement would be done on a complaint basis.

As noted above, it is expected that some adult hens will end up at the Vancouver Animal Control shelter, either through abandonment or impoundment. Currently, the shelter has no facilities for poultry, and houses the occasional stray chicken in a cage in the dog run area. This arrangement is stressful for the chickens and overstimulating for the dogs, and would be unworkable should a greater number of birds need accommodation. Therefore, staff requests that \$20,000 be provided from the existing Community Services capital budget to construct a facility with coops and runs for six hens. Although contained in one structure, each coop and run would be separate from the others, to prevent transmission of disease, as well as pecking and other aggressive behaviour common among unacquainted hens. The facility would also have electricity, in order to allow heat lamps in winter, and plumbing to improve ease of cleaning.

The Vancouver Animal Control shelter is a pro-adoption facility; therefore, efforts would be made to find placements for abandoned or impounded hens. Hens that were unable to be placed would be euthanized.

FINANCIAL IMPLICATIONS

Recommendation B (iii) requests authorization of a \$20,000 expenditure from the existing Community Services capital budget for construction of facilities to house abandoned and/or seized hens. In addition, approximately \$5,000 from the existing Licences and Inspections operating budget will be required for communications.

PERSONNEL IMPLICATIONS

No new personnel are required to implement the staff recommendation. It is expected that existing staff could maintain the on-line registry, and respond to complaints. If complaint volumes are larger than anticipated, staff may request additional enforcement staffing

resources. Creation of the on-line registry website will require approximately 4 weeks of dedicated staff time from Information Services and from Graphics and Communications.

ENVIRONMENTAL IMPLICATIONS

By providing eggs for urban residents, and fertilizer for urban gardens, backyard hens contribute to local food production, which in turn reduces the City's carbon footprint. Hens can also reduce weed and garden pest populations, thus providing an environmentally friendly alternative to pesticides and herbicides. Backyard hens produce very little environmental impact, provided that their waste is regularly collected and composted or flushed, and their enclosures are kept clean.

SOCIAL IMPLICATIONS

Backyard hens contribute to the local and affordable production of nutritious food, and thus support the goal of creating a just and sustainable food system for our City.

IMPLEMENTATION PLAN

Should Council approve the staff recommendation, amendments to the Zoning and Development By-law would proceed to public hearing on May 18, 2010. Should Council approve the proposed Zoning and Development By-law amendments at that time, those amendments, and the amendments to the Animal Control By-law, would be brought concurrently to Council for enactment. While the by-law amendments are proceeding towards enactment, staff would begin work on the on-line registry and construction of the hen facilities at the animal shelter. The on-line registry may not be completed until several weeks after the initial by-law amendments are enacted; however, phone registration would be available during that time. Once the on-line registry is established, it will be necessary to further amend the Animal Control By-law in accordance with Resolution D and Appendix C.

COMMUNICATIONS PLAN

Should Council approve the staff recommendation, staff would immediately e-mail interested parties, update the backyard hens website, and issue a press release. Communications materials would emphasize that approval for the Zoning and Development By-law amendments must await public hearing. Staff would follow the same protocol once the Zoning and Development By-law amendments are approved, and upon final by-law enactment. At that time, promotional ads for the on-line registry would be taken out in local weekly newspapers, at an estimated cost of approximately \$5,000, to be drawn from the existing Licences and Inspections public education budget.

CONCLUSION

As recognized by Council, backyard hens can provide many benefits, including improving food security, decreasing greenhouse gas emissions related to the transportation of food, and contributing to a just and sustainable food system. This report provides recommendations on how the City can enjoy those benefits, while protecting public health and safety and ensuring humane treatment of the hens. These recommendations include amendments to the Zoning and Development By-law that allow keeping of hens in all residential zones, including multi-family, that provide reduced setbacks to allow keeping of hens on Vancouver's typically

narrow lots, and that provide maximum floor area and height standards to ease permit requirements and reduce visual impacts. The recommendations also include amendments to the Animal Control By-law, including repeal of the prohibition on keeping of hens, and addition of a new section providing limits on the number and type of chickens allowed, requirements for housing and care, prohibitions on backyard slaughtering and/or commercial use, requirements for pest control, sanitation, and biosecurity, and a requirement that hen keepers register their hens. Lastly, the staff recommendation includes a request for funding to construct hen facilities at the animal shelter. In total, the recommendations provide a system of regulation that will allow Vancouver residents to safely and humanely enjoy the rewards that backyard hens provide.

* * * * *

Draft Amendments to
Zoning and Development By-law No. 3575
regarding keeping hens

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

1. This By-law amends or adds to the indicated provisions of the Zoning and Development By-law.
2. To section 2, after the definition of “Head of Household”, Council adds:
“Hen means a domesticated female chicken that is at least four months old;”.
3. After section 10.18.1, Council adds:
“10.18.2 Despite section 10.18.1, a building or other enclosure for keeping one or more hens:
 - (a) must be no more than 9.2 m² in floor area;
 - (b) must be no more than 2 m high;
 - (c) must be no closer than 3 m from any door or window of any dwelling;
 - (d) must be situate only in a rear yard or a side yard;
 - (e) may be anywhere in a rear yard;
 - (f) must, on a corner flanking lot, be no less than the greater of a distance equal to:
 - (i) the existing setback of the principal building, and
 - (ii) the required setback for a principal building under the Zoning and Development By-law,from the property line adjacent to the flanking street;
 - (g) must be at grade level;
 - (h) must be no less than 1 m from any property line; and
 - (i) may be situate only in RA, RS, RT, RM, and FM zones.”

* * * * *

BY-LAW NO. _____

**A By-law to amend Animal Control By-law No. 9150
regarding keeping hens**

THE COUNCIL OF THE CITY OF VANCOUVER, in public meeting, enacts as follows:

1. This By-law amends or adds to the indicated provisions of the Animal Control By-law.
2. To section 1.2, after the definition of “dog”, Council adds:
‘ “hen” means a domesticated female chicken that is at least four months old;’.
3. From section 1.2, Council repeals the definition of “other animal”, and substitutes:
‘ “other animal” means any animal, including any mammal, bird, reptile or amphibian, except a dog or domestic cat;’.
4. Council repeals section 7.2, and substitutes:
“7.2 A person must not keep in any area, temporarily or permanently, any horses, donkeys, cattle, swine, sheep, goats, ducks, geese, turkeys, pheasants, quail, or other poultry or fowl, except that this prohibition does not apply to:
 - (a) keeping hens, subject to sections 7.15 and 7.16;
 - (b) areas in which the Zoning and Development By-law allows the keeping of such animals;
 - (c) licensed pet shops or kennels;
 - (d) slaughter houses; or
 - (e) the exceptions set out in section 7.4.”
5. In section 7.5, Council:
 - (a) from subsection (a), strikes out “or”;
 - (b) from subsection (b), strikes out “.”, and substitutes “; or”; and
 - (c) after subsection (b), adds:
“(c) four hens, in aggregate, on any one parcel despite the number of dwelling units permissible on that parcel.”
6. After section 7.14, Council adds:

“Registration of hens

7.15 A person must not keep a hen unless that person first registers with the city, by:

- (a) requesting, by telephone to 311, the mailing to that person of the information on keeping hens and an application form;
- (b) reading such information;
- (c) completing the application including the following mandatory fields:
 - (i) the date,
 - (ii) the person’s name, address and postal code,
 - (iii) confirmation that the person resides on the property where he or she will be keeping hens, and
 - (iv) confirmation that the person has read the information referred to in subsection(b); and
- (d) returning the completed application to the city;

and such person must promptly update, and provide to, the city any information given when any change occurs.

Keeping of hens

7.16 A person who keeps one or more hens must:

- (a) provide each hen with at least 0.37 m² of coop floor area, and at least 0.92 m² of roofed outdoor enclosure;
- (b) provide and maintain a floor of any combination of vegetated or bare earth in each outdoor enclosure;
- (c) provide and maintain, in each coop, at least one perch, for each hen, that is at least 15 cm long, and one nest box;
- (d) keep each hen in the enclosed area at all times;
- (e) provided each hen with food, water, shelter, light, ventilation, veterinary care, and opportunities for essential behaviours such as

scratching, dust-bathing, and roosting, all sufficient to maintain the hen in good health;

- (f) maintain each hen enclosure in good repair and sanitary condition, and free from vermin and obnoxious smells and substances;
- (g) construct and maintain each hen enclosure to prevent any rodent from harbouring underneath or within it or within its walls, and to prevent entrance by any other animal;
- (h) keep a food container and water container in each coop;
- (i) keep each coop locked from sunset to sunrise;
- (j) remove leftover feed, trash, and manure in a timely manner;
- (k) store manure within a fully enclosed structure, and store no more than three cubic feet of manure at a time;
- (l) remove all other manure not used for composting or fertilizing;
- (m) follow biosecurity procedures recommended by the Canadian Food Inspection Agency;
- (n) keep hens for personal use only, and not sell eggs, manure, meat, or other products derived from hens;
- (o) not slaughter, or attempt to euthanize, a hen on the property;
- (p) not dispose of a hen except by delivering it to the Poundkeeper, or to a farm, abattoir, veterinary, mobile slaughter unit, or other facility that has the ability to dispose of hens lawfully; or
- (q) not keep a hen in a cage.”

7. A decision by a court that any part of this By-law is illegal, void, or unenforceable severs that part from this By-law, and is not to affect the balance of this By-law.

8. This By-law is to come into force and take effect on the date of its enactment.

ENACTED by Council this _____ day of _____, 2010

Mayor

City Clerk

BY-LAW NO. _____

**A By-law to amend Animal Control By-law No. 9150
regarding keeping hens**

THE COUNCIL OF THE CITY OF VANCOUVER, in public meeting, enacts as follows:

1. This By-law amends or adds to the indicated provisions of the Animal Control By-law.
2. Council repeals section 7.15 and substitutes:

“

Registration of hens

7.15 A person must not keep a hen unless that person first registers with the city:

- (a) electronically by:
 - (i) accessing the city's animal control computer website at _____,
 - (ii) accessing the link from that website to the on-line registry at _____,
 - (iii) reading the information on keeping hens at the on-line registry site,
 - (iv) completing the application at the on-line registry site including the following mandatory fields:
 - (A) the date,
 - (B) the person's name, address and postal code,
 - (C) confirmation that the person resides on the property where he or she will be keeping hens,
 - (D) confirmation that the person has read the information referred to in clause (iii), and
 - (v) submitting the application to the on-line registry site; or
- (b) by requesting, by telephone to 311, the mailing to that person of the information on keeping hens and an application form, and by:
 - (i) reading such information,
 - (ii) completing the application including the mandatory fields referred to in subsection (a)(iv), and

(iii) submitting the completed application to the city;

and such person must promptly update, and provide to, the city any information given when any change occurs.

BACKYARD HEN REGULATIONS IN BRITISH COLUMBIA AND IN MAJOR U.S. CITIES

City	Maximum # Allowed	Roosters Allowed	Permit or Licence Required	Neighbour Notification Required	Minimum Lot Size	Setbacks (from dwellings on lot)	Setbacks (from lot lines)	Setbacks (from other dwellings)
Vancouver (proposed)	4	No	Registration required	No	No	3 m (10 feet)	1 m (3 feet)	3 m (10 feet)
Victoria	Unlimited, but excessive numbers will bring into question intended use	No	No	No	No	None	None	None
Esquimalt	4	No	No	No	No	None	1.5 m (5 feet)	None
Burnaby	Unlimited	Yes	No	No	1 acre; A1 & A2 zones only	9 m (30 feet)	24.5 m (80 feet)	None
Richmond	Unlimited	Yes	No	No	2,000 sq. metres (1/2 acre)	None	None	None
Surrey	12 per acre	Yes	No	No	1 acre	None	Front and Side Yard Flanking Street = 36 m (120 feet) Rear and Side Yard = 7.5 m (25 feet)	None
New Westminster	8 chickens on 6,000 sq. ft. lot, plus one for each additional 750 sq. ft., and up to 50 on lots greater than 1/2 acre	Yes	No	No	6,000 sq. ft.	50 feet (15.2 metres) 100 feet (30.4 metres) if more than 12 chickens	None	50 feet (15.2 metres) 100 feet (30.4 metres) if more than 12 chickens
Seattle	Three, with one additional chicken allowed per 1,000 ft ² beyond minimum lot size (or beyond 5,000 ft ²)	Yes	No – voluntary registry through King County Public Health	No	No	None	10 feet	None

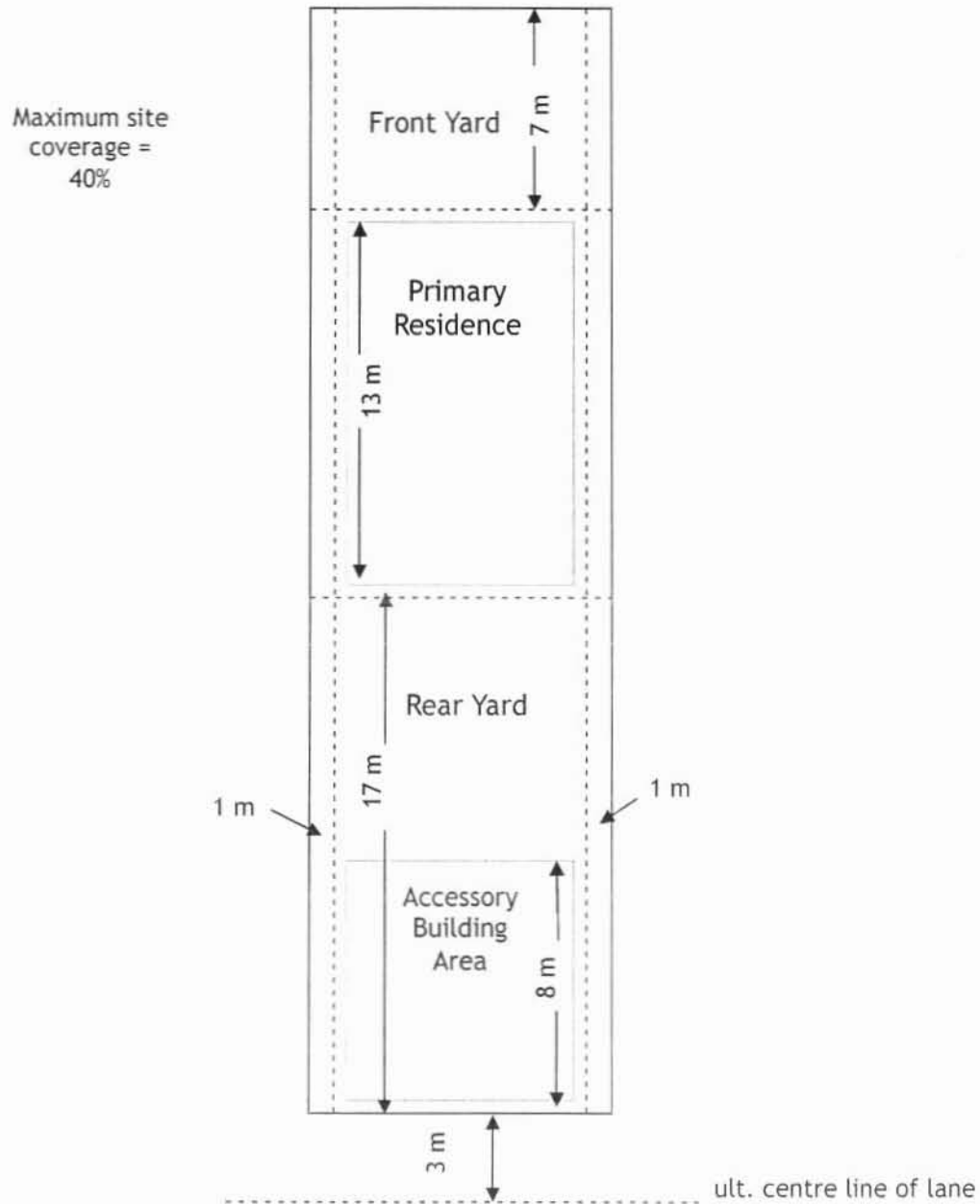
City	Maximum # Allowed	Roosters Allowed	Permit or Licence Required	Neighbour Notification Required	Minimum Lot Size	Setbacks (from dwellings on lot)	Setbacks (from lot lines)	Setbacks (from other dwellings)
Portland	Three without permit, unlimited with permit	No	Yes, for more than 3 chickens	Yes, for more than 3 chickens	No	None	None	15 feet
San Francisco	Four	Yes	No, unless kept for commercial purposes	No	No	20 feet from doors or windows	None	20 feet from doors or windows
Los Angeles	Unlimited	Yes	No	No	No	20 feet	None	35 feet; 100 feet for "crowing birds"
Denver	Unlimited	Yes	Yes	Yes	No	None	None	None
Chicago	Unlimited	Yes	No	No	No	None	None	None
Madison, WI	Four	No	Yes	Yes	No	None	None	25 feet
Minneapolis	Unlimited	Yes	No	Yes	No	None	None	None
New York City	Unlimited	No	No	No	No	None	None	None

Survey of Recommended Minimum Space Requirements for Poultry Keeping

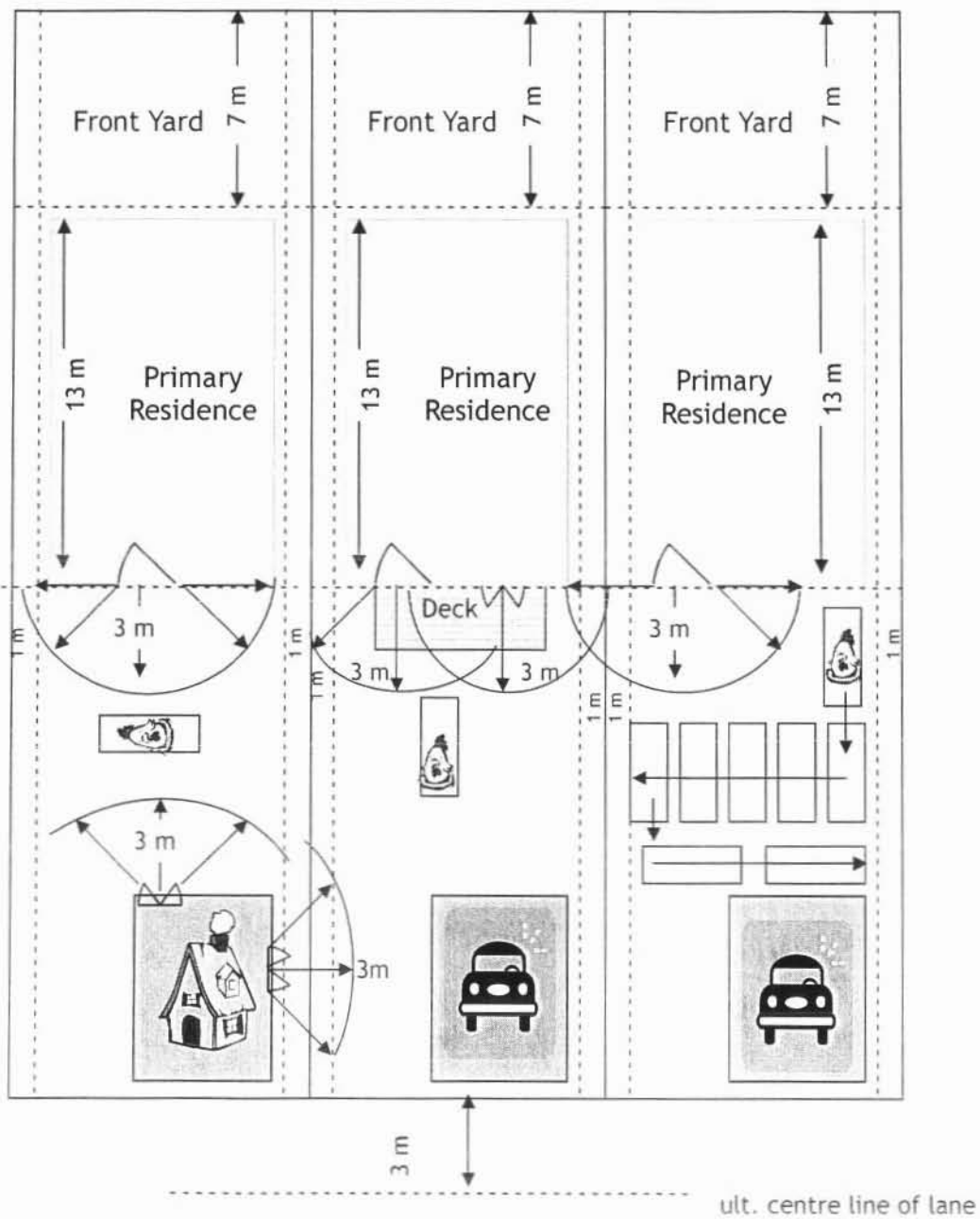
Organization	Recommended Minimum Space Requirements – Interior floor space in sq. ft. per hen	Recommended Minimum Space Requirements – Exterior floor space in sq. ft. per hen	Notes
Cooperative Extensions			
Michigan State University Cooperative Extension	1.5 -2		Plus feeding and watering areas
New Mexico State University Cooperative Extension	2.5 – 3		Also 4 inches of feeder space, and 2 inches of water feeder space
Texas A&M University Cooperative Extension	3		
Utah State University Cooperative Extension	1.5 - 2 sq. ft./bird floor space plus 1 – 1.5 sq. ft. nest box area per 4 -5 hens		Does not include interior space for feed/water
Virginia Cooperative Extension – Urban Fowl	1 sq. ft./ 1 lb. body weight (=2 sq. ft. for bantams; 4 – 8.5 sq. ft. for other hens) 3 cu. ft. of air space / 1 lb. of body weight		Laying hens typically weigh between 4 and 8.5 lbs., depending on breed; bantams average around 2 lbs.
Virginia Cooperative Extension – Commercial Flocks	1.5 plus one 0.7 sq. ft. nest box per 5 birds	8	
University of California at Davis Cooperative Extension	2 -2.5 for bantams and small breeds; 3 – 3.5 for larger breeds		
University of Florida IFAS Extension	1.5 – 3.0		
University of Georgia Cooperative Extension	3 – 3.5		
University of Maryland Cooperative Extension	3		
University of Minnesota Cooperative Extension	3		Guidelines for small laying flocks
University of Missouri Extension	3 (light breeds) 4 (heavy breeds)		
University of New Hampshire Cooperative Extension – "Producing Your Own Eggs"	3		

Organization	Recommended Minimum Space Requirements - Interior floor space in sq. ft. per hen	Recommended Minimum Space Requirements - Exterior floor space in sq. ft. per hen	Notes
Other Government Agencies			
Canada Plan Service	2 -3, depending on size of hen, plus 0.65 sq. ft. nest box per 5 birds		For small-scale commercial operations
Canadian Agri-Food Research Council	1 sq. cm./1 g body weight ex: 2 sq. ft. for 4 lb. bird 4 sq. ft. for 8 lb. bird		For free-run, indoor commercial systems with litter floors
ATTRA – National Sustainable Agricultural Information Service	2 -3 if adequate ventilation and insulation to prevent condensation; 4 – 8 if not		For flocks without regular ranging
New South Wales Agriculture Department	3.5		Plus 25 cm x 30 cm nest box
Municipalities			
City of Esquimalt	4.3		
City of New Westminster	4	2.5 sq. ft. of "runway" floor area	8 cu. ft. of space in pen or shed
City of Colorado Springs, CO	4	"adequate" outdoor space	
City of Fayetteville, AR		100	
City of Missoula, MT	2	outdoor enclosure required	
City of Rochester, NY	4	2.7	
Humane Organizations			
United Poultry Concerns	8-10		
Global Federation of Animal Sanctuaries	4	10	
Chicken Run Rescue	4	10	
Popular Websites			
Backyard Chickens.com	2-3	4-10	see FAQs and Raising Chickens 101
BBC Green blog	4	25 sq. ft./bird if run is not movable	
Chicken-yard.net	3.5 (for 3 birds) 7 (for 5 – 7 birds)		
Just Food (NYC)	2 - 4	4	
Mad City Chickens	3	6	
Professor Chicken.com	4	10 – 12	6-8 sq. ft./bird if no outdoor run
SoPo Chickens	4	10	Does not include interior space for feed/water and nest boxes
Global Federation of Animal Sanctuaries	4	10	

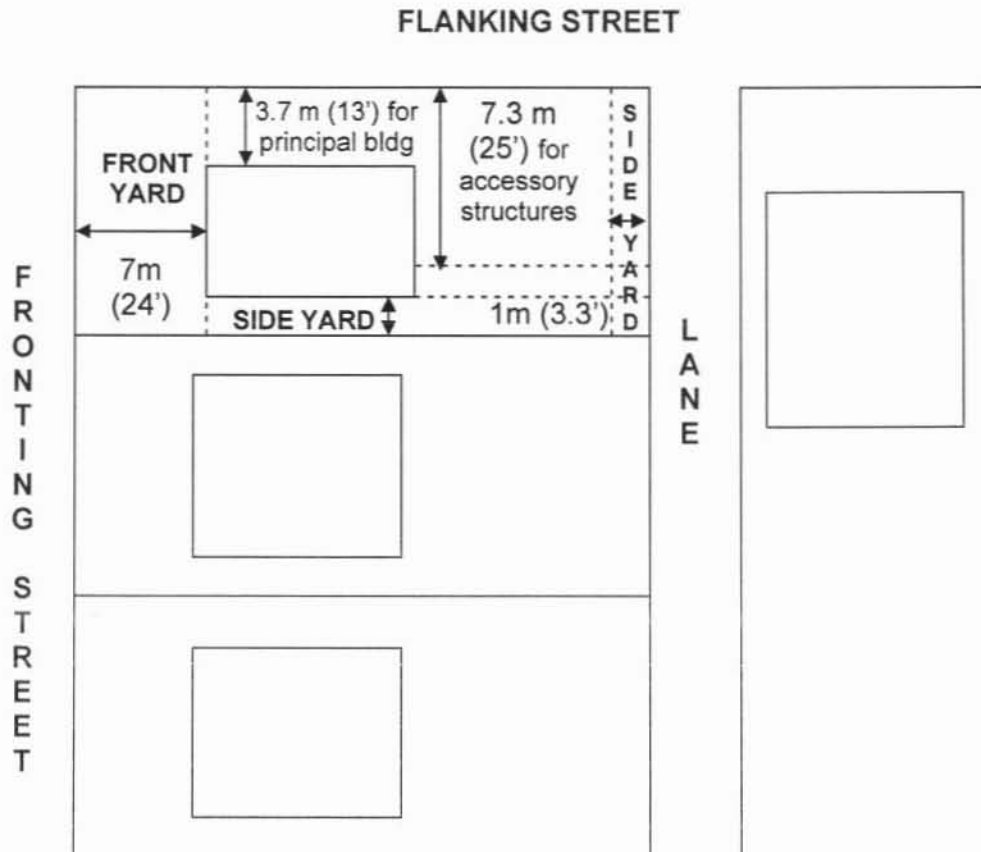
Building area, RS-1 Zone
(33' x 122' lot)



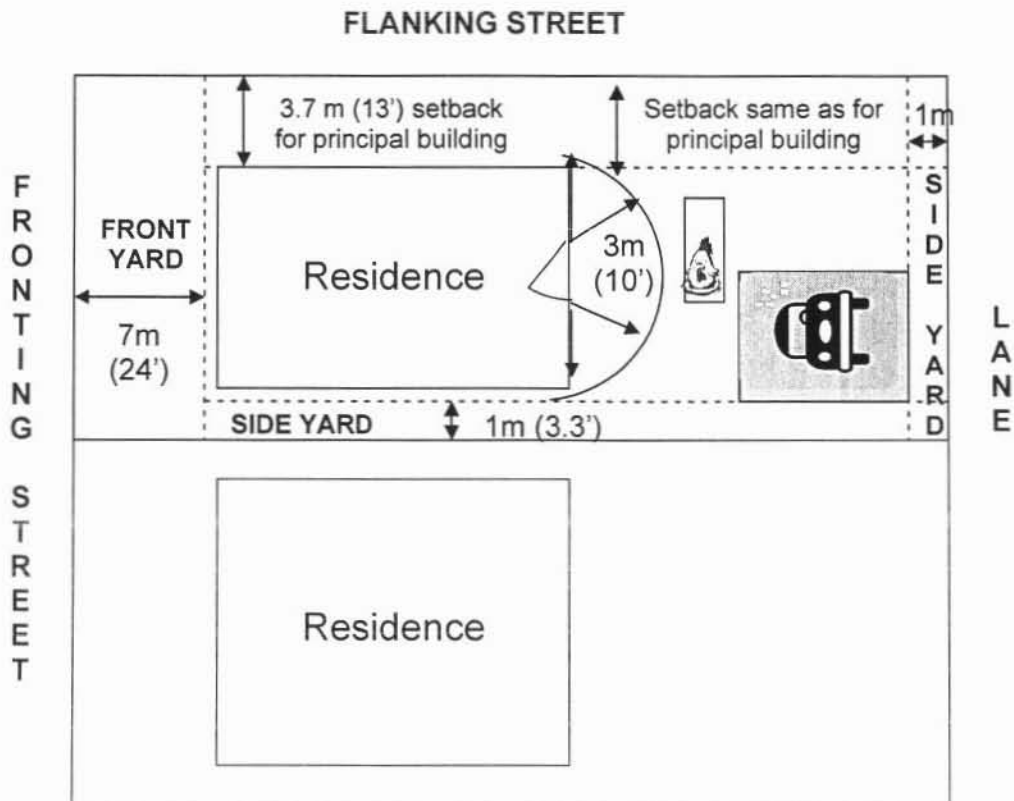
Proposed Setbacks for Hen Enclosures
shown on a 33' x 122' RS-1 Zone lot



Corner Flanking Lot Setbacks RS- and RT- Zones



Proposed Corner Flanking Lot Setbacks
RS- and RT- Zones



Backyard Hens - Comments Received March 6, 2009 - October 4, 2009		
Comments in Support	Comments Opposed	Other Comments
26	3	5
Reasons for Support	Reasons for Opposition	Other Comments
Food Security	Avian flu	Please keep me updated
Sustainability	Rats	Do not allow slaughter
Fresh eggs	Smell	Require adequate living standards
Alternative to factory farms	Noise	Will roosters be allowed?
	Salmonella	Do not allow slaughter

Backyard Hens - Comments Received on Draft Guidelines - October 2009		
Comments in Support	Comments Opposed	Other Comments
16	2	2
Comments Regarding Zoning Guidelines	Comments Regarding Animal Control Guidelines	
Allow relaxed setbacks for corner lots	Allow hens to free range in yard	
Reduce 10 foot setback from dwelling on lot	Reduce coop/enclosure space requirements	
Reduce 10 foot setback from neighbour dwelling	Allow ducks	
Increase setback from dwellings	Allow chicks	
Allow enclosures in side yards	Allow up to 6 hens	
	Require only one nest box for all hens	
	Provide list of local resources on web site	
	Require owner approval for keeping of hens on rental properties	
	Require approval from neighbours/other tenants	
	Have all registry materials in several languages	
	Include species name (<i>Gallus gallus domesticus</i>)	
	Clarify response in event of avian flu	
	Require measures to prevent predation	

Background - Avian Influenza and Salmonella

Avian Influenza

Chickens, like other birds, are susceptible to forms of Type A influenza that are collectively known as “avian influenza” (AI). There are two forms of AI:

Low Pathogenic Avian Influenza (LPAI, or “low path”)

High Pathogenic Avian Influenza (HPAI, or “high path”)

LPAI produces relatively mild or no symptoms, and is widespread, particularly among wild birds. In contrast, HPAI produces severe symptoms but is less common, occurring in acute outbreaks. LPAI can mutate into HPAI after circulation in a concentrated poultry population.⁸ AI is not an airborne disease, but is transmitted via direct contact with birds and their droppings, feathers, and body fluids.⁹

Along with the two different forms of AI, there are many subtypes. Like other influenza viruses, these subtypes are identified by two surface antigens: H (hemagglutinin) and N (neuraminidase). Only the H5 and H7 subtypes are known to have become highly pathogenic in avian species, including domestic poultry.¹⁰ AI has spread to humans in rare instances.

The most severe occurrence of HPAI is an ongoing H5N1 outbreak that originated in China in 2003 and has spread throughout Asia and into Europe, the Middle East, and Africa. This virulent disease has resulted in the death (from disease and culling) of an estimated 150 million birds since 2003. During that time, there have been 467 confirmed human cases of H5N1 with 282 deaths. These cases, which have largely been attributed to direct contact with dead or sick birds, have occurred in 15 countries in Asia, Africa, and the Middle East, all of which are considered developing countries by the United Nations Human Development Index.¹¹ No cases of human infection have occurred in countries with the highest standards of living, such as those in the more prosperous areas of Asia, Europe, and the Middle East, despite the presence of H5N1 in poultry and wild birds in those regions.

This outcome is consistent with the findings of the Food and Agriculture Organization of the United Nations (FAO), which attributes spread of H5N1 to the practices more commonly found in poorer, less regulated areas. These include: poor sanitation; lack of veterinary inspection; live poultry markets; slaughtering in retail outlets; transport of diseased animals, contaminated cages, and dirty egg crates; contact between wild birds and aggregations of

⁸ World Health Organization (WHO). Avian Influenza Fact Sheet. Retrieved January 14, 2010, from http://www.who.int/mediacentre/factsheets/avian_influenza/en/.

⁹ Food and Agriculture Organization of the United Nations (FAO). Questions and Answers - The Facts of Bird Flu. Retrieved January 14, 2010, from <http://www.fao.org/avianflu/en/qanda.html>.

¹⁰ Canadian Food Inspection Agency. Avian Influenza Fact Sheet. Retrieved January 14, 2010, from <http://www.inspection.gc.ca/english/anima/diseases/avflu/avflufse.shtml>.

¹¹ United Nations Development Programme. Human Development Report 2009 - HDI Rankings. Retrieved January 14, 2010, from <http://hdr.undp.org/en/statistics/>.

free ranging backyard poultry; and a general lack of biosecurity measures.¹² In Western Europe, Kuwait, Israel, and Saudi Arabia, H5N1 has occurred in sporadic and highly localized outbreaks, sometimes involving only one bird, and rarely more than one farm. Wealthier Asian countries such as Japan, South Korea, and Malaysia have controlled their outbreaks and their poultry are now considered disease-free. In contrast, in many parts of Indonesia and Vietnam, and in parts of Cambodia, China, and Thailand, H5N1 has become endemic among domestic birds.

High pathogenic H5N1 is not found in the Western Hemisphere, but there have been outbreaks of other HPAI subtypes. An outbreak caused by high pathogenic H7N3 occurred in the Fraser Valley in February 2004, resulting in the deaths (from disease and culling) of 17 million birds and an estimated \$471.6 million loss of revenue for Fraser Valley producers. The outbreak began in a large battery-style commercial operation with approximately 18,000 birds, and spread despite the culling of those flocks. By the end of the outbreak, the Canadian Food Inspection Agency (CFIA) identified HPAI H7N3 in 42 of the approximately 600 commercial poultry farms in the region and in 11 of the 553 backyard flocks, which together represented about 1.3 million birds.¹³ Infection of humans was limited to two individuals, who experienced conjunctivitis (pink eye) and mild flu-like systems.¹⁴

Since the 2004 Fraser Valley outbreak, awareness of AI has increased and government agencies from the federal to local levels have developed more extensive prevention protocols, surveillance programs, and emergency response plans for addressing AI. The CFIA responds to all reports of LPAI with targeted depopulation, quarantine, and testing programs. Should an HPAI outbreak occur, the CFIA would activate its “stamping out” policy which includes culling of all infected and exposed animals; surveillance and tracing of potentially infected or exposed animals; strict quarantine and animal movement controls to prevent spread; strict decontamination of infected premises; and zoning to define infected and disease-free areas.

For backyard chicken owners, the CFIA recommends five biosecurity measures:

1. Prevent contact with wild birds and other animals
2. Clean, clean, clean
3. Spot the signs (of disease) and report early
4. Limit exposure to visitors
5. Keep new birds separate when entering your flock

Thus, although the H5N1 subtype has caused virulent disease among birds in parts of Asia, Africa, and Europe, health authorities in Canada consider the risk of H5N1 reaching North

¹² The Lessons We Learned in 2005 from the 2004 Outbreak of HPAI (H7N3) in BC Poultry, Dr. Victoria Bowes, Avian Pathologist, Animal Health Centre, BC Ministry of Agriculture & Lands, Abbotsford, British Columbia, presented at the INSA Science Days, May 2, 2006 Quebec City, QC

¹³ Lees W, Chown L, Inch C. A short summary of the 2004 outbreak of high pathogenicity avian influenza (H7N3) in British Columbia, Canada. Ottawa, Ontario: Canadian Food Inspection Agency, Animal Products, Animal Health and Production Division; 2004.

¹⁴ Tweed SA, Skowronski DM, David ST, Larder A, Petric M, Lees M, et al. Human illness from avian influenza H7N3, British Columbia. *Emerg Infect Dis* [serial on the Internet]. 2004 Dec [date cited]. Available from <http://www.cdc.gov/ncidod/EID/vol10no12/04-0961.htm>.

America, or other HPAI subtypes spreading among backyard hens, to be extremely limited, particularly if biosecurity measures, such as those recommended by the CFIA, are followed.

Salmonella

Salmonella is another health concern associated with poultry and eggs. *Salmonella* lives in the intestines of infected chickens, and can be shed in large numbers in the droppings. Although *Salmonella* can be found among adult chickens, it is most commonly shed by chicks. Once shed, bacteria can spread across the chicken's body as the bird cleans itself and throughout the immediate environment. Humans who handle the birds or clean their enclosures can then be exposed to the bacteria, which can cause severe gastrointestinal illness if ingested. Health authorities recommend proper hand washing and other sanitation measures, such as changing clothes and boots, immediately after contact with poultry and their enclosures. They also recommend that children under 5 and those with compromised immune systems avoid exposure to chickens, particularly chicks. Regular cleaning of enclosures can also reduce the presence of *Salmonella*.¹⁵

The guidelines recommended to reduce the risks of avian influenza will also help minimize the risk of *Salmonella* poisoning from contact with chickens. This risk is further reduced by the recommended prohibition of hens less than four months old, as chicks shed much more *Salmonella* than older birds. In addition, transmission of the bacteria will be limited by the recommended prohibition on commercial sale of eggs or other hen products. The risk of *Salmonella* poisoning thus mainly affects those who are keeping hens, and their friends and families. Minimizing the spread of *Salmonella* is therefore largely a matter of personal responsibility that can be accomplished through good hygiene and proper precautions before and after handling of hens. It should be noted that other pets, particularly reptiles such as turtles and snakes, but also birds, hamsters, cats, dogs, and other animals, also shed *Salmonella* bacteria.

¹⁵ National Center for Infectious Diseases, Healthy Pets Healthy People Program. Health Risks Associated With Raising Chickens. Retrieved January 14, 2010, from http://www.cdc.gov/healthypets/pdf/intown_flocks.pdf.

City	No. Allowed	Requirements	Complaints
Central Sannich	5	On a parcel of land greater than 1858 m ²	No complaints. Some At Large calls and chickens where not zoned in other municipalities but not this one.
Nanaimo	4	On a lot is less than 450 m ²	Receive approx 6 complaints a year. Related to smell most then noise and rodents.
Nanaimo	6	On a lot less than 0.4 Hectares	
North Sannich	10	On a lot 1100 to 4000 m ² Not in multiple family	No complaints. Some At Large calls and chickens where not zoned in other municipalities but not this one.
Sooke	6	On lots more than 600 m ²	Very rare to get a complaint. Those have been Roosters; chicken coop too close to the fence/ setbacks; smells.
Vancouver		.37m ² coop floor each .92m ² roofed outside. No cage Permit required.	Have about 20 complaints a year mostly noise related due to roosters. Some odour complaints but most are unfounded
Vernon	3	Lot must be 12 M front 20 M deep. A Permit is required. No roosters	A few complaints about noise/roosters.
Victoria	Unlimited	No regulations. No roosters	4-5 a year. No type identified. Waiting on reply.

Abbotsford	0	In residential - they have agriculture zoning	Public have been requesting. Noting from Council as of yet.
Burnaby	0	In residential - they have agriculture zoning	
Coquitlam	0	Only allowed house hold pets. Health bylaw prohibits hens	
Dawson Creek	0		Receiving many requests from public. Would like our results.
Penticton	0		
Prince Rupert	0		Council working on same project. Would like results.
Smithers	0		Before Council week of 05/21/12 voted down 4-3 vote. Issues cited attracting predators..roosters are quite a noise concern, smell and containment issues.
Richmond	0	On less than 2000 m ² - they have agriculture zoning	